IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF MASSACHUSETTS

THE HOLMES GROUP, INC.,	:	
	:	
Plaintiff/Counterclaim-Defendant,	:	Civil Action No. 1: 05-CV-11367 WGY
	:	(Alexander, M.J.)
v.	:	
	:	
WEST BEND HOUSEWARES, LLC and FOCUS PRODUCTS GROUP, L.L.C.,	:	
	:	
Defendants/Counterclaim-Plaintiffs.	:	

HOLMES' COUNTER-STATEMENT OF MATERIAL FACTS AS TO WHICH A GENUINE ISSUE OF DISPUTE EXISTS IN SUPPORT OF HOLMES' RESPONSE TO WEST BEND'S MOTION FOR PARTIAL SUMMARY JUDGMENT ON INVALIDITY OF U.S. PATENT NOS. 6,573,483 AND 6,740,855

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December 22, 2006

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Pursuant to Rule 56.1 of the Local Rules for the United States District Court for the District of Massachusetts, Plaintiff submits that there exist genuine issues of material fact to be tried as set forth below:

I. INTRODUCTION

A. Background of This Action

1. Plaintiff, The Holmes Group, Inc., now known as Sunbeam Products, Inc., d/b/a/ Jarden Consumer Solutions, (hereinafter "Holmes") brought this action against Defendants West Bend Housewares, LLC and Focus Products Group, LLC (collectively referred to as "West Bend") for infringement of Holmes' U.S. Patent Nos. 6,573,483 and 6,740,855 entitled "Programmable Slow-Cooker Applicant" ("the '483 Patent" and "the '855 Patent," respectively). A copy of the '483 patent was attached as Exhibit A to Plaintiff's Counter-Statement of Material Facts As To Which A Genuine Issue of Dispute Exists, docket number 48, filed on October 12, 2006, (hereinafter "Holmes' First Counter-Statement"). A copy of the '855 patent was attached as Exhibit B to Holmes' First Counter-Statement.

2. The Holmes patents relate to a structure and method of using a programmable slow-cooker appliance. (Ex. A, Col. 5, line 43 - Col. 6, line 27).

3. Subsequent to the market introduction of a programmable slow-cooker by Holmes covered by the Holmes patents, West Bend began marketing and selling programmable slow-cookers (West Bend Housewares 6 Quart Oval Slow Cooker, Model 84386) which infringe the '483 and '855 patents.

4. The '483 and '855 patents also disclose and claim novel structure for cooling the electrical circuit for the programmable slow-cooker. However, Holmes has not asserted any claims directed to the cooling feature in this lawsuit. (Ex. A, Col. 1, lines 31-49).

B. Related Proceedings

5. On September 27, 2006, this Court held a Markman Hearing to construe claim limitations to which the parties could not agree. The Court rendered its opinion on claim construction at the Markman Hearing. A copy of the Markman Hearing transcript is attached as Exhibit E. A copy of the *Markman* Hearing transcript was attached as Exhibit E to Holmes' First Counter-Statement.

C. The Evidence Presented

i. West Bend's Expert Declaration should be excluded

6. As evidence in support of their motion, West Bend relies heavily upon the declaration of their Expert, Barry Feinberg (referred to hereinafter as "Dr. Feinberg"). However, it is the Court's gatekeeper function to determine whether Dr. Feinberg has the proper expertise to testify regarding the design and operation of programmable slow cookers. It is clear that Dr. Feinberg is not properly qualified as an expert to testify as to the level of ordinary skill or what was known at the time of the invention.

ii. Dr. Feinberg Has Insufficient Education, Training or Experience to Testify as an Expert on Programmable Slow-Cookers

7. One of the key elements being argued in the subject case is the design, programming and configuration of the programmable controller, and in particular the microprocessor-based programmable circuit of the slow cooker. However, Defendant's expert, Dr. Feinberg, is not qualified to testify as an expert on this subject matter.

8. Dr. Feinberg's C.V. indicates he has a B.S. in electrical engineering and an unspecified doctorate in "engineering." (*See, Resume of Barry N. Feinberg, P.E. filed as Exhibit A of Exhibit M to Defendant's First Motion for Partial Summary Judgment of Non-infringement*).

In fact, when he received his degrees in 1962 and 1968 microprocessors were just being invented. Dr. Feinberg admitted that he has never taken or taught a course relating to the design or programming of microprocessors or the design of electronic appliances that are controlled by microprocessors (*See, Feinberg Dep. @ 12:20 - 14: 9 and 33:1-34:25, attached as Exhibit A to the Declaration of Alan M. Sack in Support of Holmes' Opposition to Defendants' Motion for Partial Summary Judgment on Invalidity filed as* ***Exhibit 1*** *to this Statement*).

9. Although Dr. Feinberg alleges his Ph.D. is in "systems analysis and biomedical engineering," his thesis related to the "detection and diagnosis of obstructive lung disease" (*Feinberg Dep. 18:15 - 19: 12*).

10. Also, Dr. Feinberg has never published an article regarding the design of microprocessors or electronic appliances. Virtually all his published works relate to medicine, biology or the application of engineering science to the health care industry (see, *Feinberg CV and Feinberg Dep. 18:15 - 19:12; 60: 14-17*). He has no experience relating to programmable slow-cookers. (see, *Feinberg CV*).

iii. Dr. Feinberg Has Been Found Unqualified to Render Expert Testimony

11. Dr. Feinberg has been found unqualified to render expert testimony in a number of cases. In particular, his testimony relating to the adequacy of product warning labels was not considered by the court in *Scaccianoce v. Hixon Manufacturing and Supply Co.*, 1994 WL 113069 (N.D.Ill. 1994).

12. Similarly, he was twice found to lack "the knowledge, skill, experience, training, or education needed to testify" regarding penile implants. *John Doe and Jane Doe v. American*

Medical Systems, Inc., 96 Fed.Appx. 758 (C.A.2 Conn 2004)(the district court went on to find that his methods were inherently unreliable); *York v. American Medical Systems, Inc.*, 166 F.3d 1216 (C.A.6 Ohio 1998).

13. In the present case, he lacks the requisite education and experience to testify as an expert.

D. The Prior Art Relied Upon by West Bend

14. West Bend relies on the Weiss '287 Patent, alone or in combination with various other references, including the Rival® Crock•Pot® Slow Cooker Model No. 3350/2. Additional references are asserted by West Bend with regard to alleged invalidity of certain features of the dependent claims, namely Kowalics U.S. Patent No. 4,817,510; Norwood U.S. Patent No. 4,345,145; Holmes' U.S. Patent Nos. 3,806,701 and 3,881,090; and Park U.S. Patent No. 6,191,393. (*See Defendants' Motion for Partial Summary Judgment on Invalidity* and *supporting Feinberg Declaration*).

15. Holmes' evidence disputes West Bend's interpretation of these references and establishes by competent expert testimony that there are genuine issues of material fact as to teaching and interpretation of the references.

16. For the purpose of this motion, Holmes will primarily rely on arguments with regard to the independent claims asserted in this case; namely, claim 13 of the '483 patent and claim 20 of the '855 patent. While the features of the dependent claims may add novelty to these claims, Holmes will not rely upon them in responding to this summary judgment motion.

i. The Weiss Patent Does Not Anticipate or Render Obvious Independent Claim 13 of The '483 Patent or Independent Claim 20 of the '855 Patent, either alone or in Combination With Other References

17. The Court has construed the preamble of claim 13 of the '483 patent "A method of using a programmable slow-cooker appliance." (*Markman* transcript @ p. 3, lines 8-12, Exhibit E to Holmes' First Counter-Statement.) and the same term in Claim 20 of the '855 patent, namely "A programmable slow-cooker," as a "*cooking device designed for cooking food at a constant, relatively low cooking temperature for relatively long period of time, being programmable to operate in a variety of different cooking modes and cooking times.*" (see, *Markman transcript @ p. 25, lines 8-15, Exhibit E to Holmes' First Counter-Statement*).

18. Weiss, however, does not disclose a programmable slow-cooker. The Weiss device first heats up in its high power setting, up to 347°F (175°C) for a time interval D (about 5 minutes) and then cooks at an undisclosed "normal" cooking temperature. Weiss, therefore, teaches away from the use of the slow-cooking process.

E. Holmes' Expert Testimony of Professor Robotham

i. The Robotham Declaration Places West Bend's "Evidence" in Dispute

19. Professor Ronda J. Robotham, MAT, Holmes' Culinary expert has submitted a Declaration, in support of Holmes' opposition to this motion (*see, Declaration of Professor Ronda J. Robotham, MAT in Support of Holmes' Opposition to Defendants' Motion for Partial Summary Judgment on Invalidity filed as* ***Exhibit 2*** *to this Statement, hereinafter "Robotham Declaration").* Professor Robotham's Declaration explains the slow-cooking process in detail, and the difference between the slow-cooking process and the process utilized in the cooking device disclosed in the Weiss patent. Professor Robotham's testimony provides undisputed factual basis for denying summary judgment with regard to invalidity of both claim 13 of the '483 patent and the claim 20 of the '855 patent.

ii. The Slow-Cooking Process

20. The principle of slow cooking is generally accepted as the cooking process of applying low heat to a (food) product for an extended period of time in order to render the product tender and flavorful. This low heat application is carried out in a moist environment so that in the case of certain proteins, the collagen present will effectively convert to gelatin yielding a succulent product. *(Exhibit 2, Robotham Declaration @ page 3, paragraph 12).*

21. The extended cooking time at a low heat then allows the proteins to relax enough to redistribute the cooking liquid into the now loosened fibers resulting in the desired outcome. In considering doneness of a slow cooked product, the temperature and texture are of prime importance. Even though the slow cooking process is a relatively gentle cooking method, there is still the possibility of overcooking. The result is most often a tender but very dry product. *(Exhibit 2, Robotham Declaration @ page 3, paragraph 13).*

22. It is important to note that the slow-cookers described in U.S. Patents 6,573,483 and 6,740,855 ("the '483 and '855 Patents") have the capability to be programmed to automatically switch from a cooking mode to a "keep warm" mode which ensures the user of the desired results by automatically switching to a lower temperature. The temperature still remains high enough to prohibit harmful bacterial growth, but not so high as to further dry proteins. *(Exhibit 2, Robotham Declaration @ page 3, paragraph 14).*

iii. The Weiss '287 Patent Does Not Describe a Cooking Appliance Consistent with a Slow-Cooking Process and Therefore Cannot Anticipate Claim 13 of the '483 Patent, or Render Claim 20 of the '855 Patent Obvious in Combination With Other References

23. U.S. Patent No. 4,307,287 to Weiss does not anticipate Claim 13 of the '483 Patent, or render Claim 20 of the '855 Patent obvious, as it structurally and functionally differs from the claims of the '483 and '855 Patents. The Weiss patent describes a cooking appliance which has a cooking range that exceeds that recommended in the slow cooking process. It can achieve temperatures that are sufficient for a deep frying technique. Weiss describes use in connection which temperature ranges from simmering up to175°C (Col. 4, ll. 43-46), which converts to approximately 347°F, a setting suitable for deep frying capabilities. The heating capabilities of the Weiss Patent also are described for potential browning of proteins prior to the low heat process. *(Exhibit 2, Robotham Declaration @ pages 3-4, paragraph 15).*

24. In the background of the Weiss patent, col. 1, ll. 23-28, the statement that the items would cook correctly without supervision is a concern when working with temperatures reached in that method. In col. 1, ll. 56-61, it speaks of an initial cooking phase which causes accelerated heating allowing browning prior to prolonged cooking. While this is sometimes performed in braising or stewing, it is an additional step which differs from the '483 and '855 Patents where a relatively low heat is applied to the food product. *(Exhibit 2, Robotham*

Declaration @ page 4, paragraph 16).

25. While accelerated heating to high temperatures that sear the food is accepted as a norm for many braised and stewed dishes, this process moves away from the simple slow cooker and the low conductive properties of the ceramic cooking vessel. Weiss does not provide a specific temperature range to address the "hot" setting, which could also be a concern. *(Exhibit 2, Robotham Declaration @ pages, paragraph 17).*

26. Based on the interpretation of claim 13 of U.S. Patent No. 6,573,483 or claim 20 of U.S. Patent No. 6,740,855 the cooking process of a slow cooker is designed to use the benefits of a simple process using relatively low heat for a relatively long time. Accordingly, a person seeking optimal temperature range for slow cooking would not look to a device which lists the temperatures identified nor look toward the Weiss '287 Patent to serve this purpose. *(Exhibit 2, Robotham Declaration @ page 4, paragraph 18).*

iv. There is No Motivation to Combine the Disclosure of the Weiss '287 Patent with the Rival® Crock•Pot® or Patents Disclosing Slow-Cookers with Ceramic Cooking Units

27. West Bend's Memoranda relies on paragraph 11 of Dr. Feinberg's Declaration, in which he stated that the material for the cooking vessel in the Weiss patent is not identified. In paragraph 12, he states that the Rival® Crock•Pot® discloses the use of a ceramic cooking unit. One skilled in the art of slow cooking would be motivated to use ceramic because of its, relatively ineffective conductive properties. Based on the information presented in the Weiss patent, the cooking device appears to be a metallic cooking vessel sitting on an electronic heating element, similar to an electric griddle, which could also be a negative factor when considering slow cookers. *(Exhibit 2, Robotham Declaration @ pages 4-5, paragraph 19).*

v. There is No Motivation for One Skilled in the Art to Combine the Disclosure of the Weiss '287 Patent with U.S. Patent No. 4,817,510 to Kowalics

28. West Bend's Memoranda relies on paragraph 9 of Dr. Feinberg's Declaration regarding the motivation for combining Weiss with U.S. Patent No. 4,817,510 to Kowalics, this does not seem appropriate. The Kowalics patent is for an apparatus used to heat fluids. The device's documentation indicates that it reaches temperatures up to boiling (212°F) which is inappropriate for a slow cooker. It is designed to heat a product to the boiling temperature (212°F), which would cause available liquid to evaporate and be drawn from proteins, rendering them dry and potentially tough. *(Exhibit 2, Robotham Declaration @ page 5, paragraphs 20-21; also see, Declaration of Professor David L. Trumper, Ph.D. in Support of Holmes' Opposition to Defendants' Motion for Partial Summary Judgment on Invalidity filed as* ***Exhibit 3*** *to this Statement, hereinafter "Trumper Declaration," @ page 12, paragraphs 39-41 and page 13, paragraphs 41-44).*

vi. There is No Motivation for One Skilled in the Art to Combine the Disclosure of the Weiss '287 Patent with U.S. Patent No. 4,345,145 to Norwood

29. West Bend's Memoranda relies on paragraph 9 of Dr. Feinbergs Declaration also relies on U.S. Patent No. 4,345,145 to Norwood, which is directed to a programmable toaster oven. A toaster oven is a device that typically cooks, bakes and broils with dry heat, unlike the moist environment of a slow cooker. In addition, toaster ovens typically cook, bake and broil at temperatures of up to 500°F, which are much higher than are used in slow cookers. Accordingly, one would not look at toaster ovens for the design of slow cookers. *(Exhibit 2, Robotham Declaration @ page 5, paragraph 22).*

vii. There is No Motivation for One Skilled in the Art to Combine the Disclosure of the Weiss '287 Patent with U.S. Patent No. . 6,191,393 to Park

30. West Bend's Memoranda relies on paragraph 13 of Dr. Feinberg's Declaration also relies on U.S. Patent No. 6,191,393 to Park, which is directed to a double walled metallic roaster filled with synthetic oil, a device that is very different from a slow cooker. Roasters

typically operate at temperatures between about 300-500°F and cook in a very hot, dry environment over relatively short periods of time, typically 1-3 hours. These conditions and temperatures are not compatible with slow cooking. Accordingly, one would not look to roasters in contemplating slow cooker design. *(Exhibit 2, Robotham Declaration @ page 6, paragraph 23).*

F. Holmes' Expert Testimony of Professor Trumper

31. Weiss does not disclose a structure required for claims 13 of the '483 and specifically does not have a programmable circuit "a programmable circuit positioned within said housing and configured to automatically switch said heating element from a cook mode to a low temperature warm mode at the end of said cooking time" which the Court interpreted during its *Markman* Hearing transcript dated September 27, 2006. At page 38 the Court defined the programmable circuit as "a programmable circuit positioned within said housing means a circuit, including an assembly of electronic components, which allows the user to program both the temperature and the desired time for cooking and which can automatically change the heating element from a cooking mode to a warm mode once the set cooking time has expired. For claim 20, in particular, the Court's interpretation adds "The circuit, not just a portion of the circuit, is positioned within the housing. The programmable circuit does not include the heating element, the control panel, displays and buttons." For claim 13, the programmable controller is defined as "programmable controller as a form of electrical circuit or circuits including input and output devices which permit an operator to select a cooking temperature and cooking time. (*Markman Hearing* @ page 20, lines 19-22, Exhibit E to Holmes' First Counter-Statement.)

32. As set forth in the Declaration of Professor of David L. Trumper in support of Plaintiff's response to this instant summary judgment motion, neither the Weiss, Kowalics nor

the Rival reference cited by West Bend, describe such a "programmable controller," as required in claim 13 of the '483 patent or a "programmable circuit," as required in claim 20 of the '855 patent. Dr. Trumper has established the following material facts in controversy, which mitigate against summary judgment of invalidity of the patents-in-suit. (*Exhibit 3, Trumper Decl.*)

i. Dr. Feinberg's Analysis of the Cited References is Flawed

33. Dr. Feinberg's invalidity analysis is flawed because it is based upon an incorrect interpretation of the terms "programmable controller" (`483 patent, claim 13), and "programmable circuit" (`855 patent, claim 20). The requirement that these terms include a controller or circuit which is programmable is inherent in the language of the terms themselves, and made clear in the specification and prosecution histories of the `483 and `855 patents. Dr. Feinberg does not apply the requirement for programmability in his invalidity analysis, and thus he reaches the wrong conclusions. (*Exhibit 3, Trumper Decl. @ page 4, paragraph 15).*

34. The programmable controller and/or programmable circuit, as construed by the Court in the claims of the patents-in-suit:

a) is programmable, and

b) controls time and temperature.

Feature a) requires that the programmable circuit encompasses a microprocessor, microcontroller, or equivalent programmed computational capability in an integrated circuit. Feature b) requires that both time and temperature be measured and that control action be taken on the basis of these measurements. (*Exhibit 3, Trumper Decl. @ pp.4-5, paragraph 16).*

35. The a) programmability and b) control requirements are clearly spelled out in the patent specifications and specified in the claims in suit. For example:

> The heating element 24 (not shown) may be powered on and off as necessary to supply heat at a maintained temperature to the cooking unit 39 and the heating chamber via a programmable control 200. (`483 patent, Col. 3, ll. 8-12)

and

> The circuit board 254 mounts circuitry and logic allowing the user of the appliance 10 to electronically control and program cooking cycles and temperature. (`483 patent, Col. 4, ll. 48-50) (*Exhibit 3, Trumper Decl. @ page 5, paragraph 17).*

36. This analysis is also consistent with the Court's Markman interpretation of the claim language. Claim 13 of the '483 Patent recites "**A method of using *a programmable slow-cooker appliance***." This element appears in Claim 13, lines 1-2 of the '483 Patent. The Court construed the italicized portion of this claim element as "*a cooking device designed for cooking food at a constant relatively low cooking temperature for a relatively long period of time [being], being programmable to operate in a variety of different cooking modes and cooking times.*" (*See, Markman* Transcript @ page 3, lines 7-12, Exhibit E to Holmes' First Counter-Statement.) (*Exhibit 3, Trumper Decl. @ page 5, paragraph 18).*

37. Dr. Feinberg also has an incorrect understanding of feedback control as it applies to the patents-in-suit and the cited prior art references. The terms "maintain temperature" and "control… temperature" refer to a feedback control process which is clearly described in the patent specification:

> "The temperature of the cooking appliance is measured using a thermistor 310, which is connected externally of the circuit board to the underside of the bottom of the heating chamber." (`483 patent, Col. 5, ll. 19-22)

and

> "In all modes, the temperature is read periodically by the thermistor or other temperature element and relayed to the controller. The reading is checked at 4-second intervals. If the temperature is above or equal to the set point, power is removed. If it is below the set point, power is applied to the heating element 32. Of course, the circuitry can be modified as desired to achieve various program methods and modes." ('483 patent, Col. 7, ll. 3-9)
>
> (*Exhibit 3, Trumper Decl. @ page 6, paragraph 19).*

38. As specified above, temperature measurement and feedback control of temperature by application of power to the heating element is used in all modes of the invention. Accordingly, the control of temperature in the patents-in-suit requires measurement of temperature and a feedback control action on the basis of this measurement. (*Exhibit 3, Trumper Decl. @ page 6, paragraph 20).*

39. In addition, the patent specifies that temperature measurement and thus the associated control action take place on a periodic interval (for example, 4 seconds). Such sampled control is characteristic of microprocessor systems, and confirms that the controller of the invention utilizes a microprocessor, microcontroller, or equivalent. Accordingly, temperature sensor data are gathered in the programmable slow-cooker of the patents-in-suit. (`483 patent, Col. 7, ll. 3-9). This data is gathered at a fixed time interval (e.g., 4 seconds) to facilitate real-time control (maintaining) of a user-programmed temperature and cooking time. (*Exhibit 3, Trumper Decl. @ page 6, paragraph 21).*

40. The programmable circuit of the patents-in-suit uses closed-loop feedback to control the cooking temperature. The microprocessor controller of the programmable circuit achieves this function by measuring the temperature with a thermistor and then applying power to the heating element on the basis of this feedback. (*Exhibit 3, Trumper Decl. @ page 6, paragraph 22).*

41. By contrast, the Weiss `287 patent, in Figures 6 and 7 provides an open-loop

control where the heating element is driven with a fixed on/off timer-based pattern. This is confirmed by the observation that the "controller" 22 of Weiss (shown in Fig. 8) has no measurement input for a temperature sensor. It is an open-loop timer which sets the on/off pattern applied to the heating element without regard for the resulting temperature. The "controller" 22 of Weiss is open-loop; it is unable to exert control over the temperature of the cooking process, and thus is unable to control the quality of the cooking result. The responsibility for a correct cooking temperature and cooking result is left to the user of the device shown in Weiss. This is quite distinct from the closed-loop control of the patents-in-suit, in which temperature is maintained via feedback control. (*Exhibit 3, Trumper Decl. @ page 7, paragraph 23).*

42. Dr. Feinberg makes a significant error by failing to distinguish between open loop and closed loop control. Dr. Feinberg seems to view anything which affects temperature as being a form of programmable temperature control. This is simply incorrect in the context of the patents-in-suit. (*Exhibit 3, Trumper Decl. @ page 7, paragraph 24).*

43. Dr. Feinberg also makes a significant error in that he seems to view anything which can be set as a programming input to a programmable controller. For example, he views an oven with a manually-settable thermostat and mechanical timer to turn the oven on and off as a programmable controller within the scope of the claims in suit. (*Feinberg dep.* 247:8-22, *attached as Exhibit A to the Declaration of Alan M. Sack in Support of Holmes' Opposition to Defendants' Motion for Partial Summary Judgment on Invalidity filed as* ***Exhibit 1*** *to this Statement*.) In this incorrect view, the knobs of the thermostat and timer are programmable inputs. However, such oven thermostats and mechanical timers have been available on the market since the early part of the last century. They cannot be considered a programmable

controller within the context of the patents-in-suit. Dr. Feinberg asserts an unreasonable position, which is unsupportable in light of the specifications of the patents-in-suit and their file histories. (*Exhibit 3, Trumper Decl. @ page 7, paragraph 25).*

44. Dr. Feinberg also takes inconsistent positions in two of the pending motions. In arguing non-infringement in his Declaration (signed on July 18th) filed on July 19, 2006, he indicates that the digital logic and circuitry of the accused West Bend device is not programmable. In Photo 9 of this declaration, he identifies the microprocessor of the West Bend device as the "programmable controller" and says that it is "the only component… that is programmed to operate the heating element in accordance with the selected cooking parameters (i.e., cooking time and temperature) and to automatically lower cooking temperature to a warm mode after the selected time elapses." Feinberg Non-Infringement Decl. at Para. 13. This is far different than the broad position taken in his subject declaration and in his deposition; for example under his interpretation, the interface logic and circuits in West Bend's first printed circuit board could seemingly constitute a programmable controller in their own right. (*Exhibit 3, Trumper Decl. @ page 8, paragraph 26).*

45. This inconsistent analysis may be based upon Dr. Feinberg's lack of education or current expertise with regard to microprocessor based circuits. None of Dr. Feinberg's educational and teaching background relates to microprocessor control systems. (*Feinberg dep.* 14:5-15:6.) Dr. Feinberg's sole teaching and research background with regard to computer control appears to be more than 20 years old. In view of his lack of background in microprocessor controlled systems, Dr. Feinberg has apparently made an incorrect interpretation of the Court's Markman interpretation of the claims at issue. (*Exhibit 3, Trumper Decl. @ page 8, paragraph 27).*

46. In addition, Dr. Feinberg takes an unrealistic position on the background of one of ordinary skill in the art. In my view, one of ordinary skill in the art which pertains to the patents-in-suit as having a Bachelors degree in engineering, and with one or two years of experience designing electronic control circuits for slow-cookers, and who is familiar with the cooking process requirements of slow-cookers. (*Exhibit 3, Trumper Decl. @ page 8, paragraph 28).*

47. Dr. Feinberg believes that one of ordinary skill in the art does not even need an engineering degree. (*See, Feinberg dep.*186:9-187:8) Alternatively, Dr. Feinberg claims that an electrical engineer with no experience in the design or manufacture of cooking devices could be considered as one of ordinary skill in the art (*See, Feinberg dep.*187:9-19) (*Exhibit 3, Trumper Decl. @ page 9, paragraph 29).*

48. Given the inconsistencies and significant inaccuracies in his declarations and deposition, Dr. Feinberg has insufficient background to qualify as an expert in the fields relevant to the patents-in-suit. Based upon a review of Dr. Feinberg's resume, his reports, his lack of publications (no journal publications for more than 20 years), and his deposition transcript, there is no evidence that Dr. Feinberg is an expert in the fields to which he is testifying. Furthermore, he does not even qualify as one of ordinary skill in the art of this case. Dr. Feinberg's education precedes modern microprocessor control, and he clearly has no clear idea of what constitutes a programmable controller. Neither does Dr. Feinberg make any distinction between closed-loop and open-loop control. Ignorance of this distinction is an overwhelming fault which renders his opinions flawed and unreliable. (*Exhibit 3, Trumper Decl. @ page 9, paragraph 30).*

49. Dr. Feinberg's analysis of the references cited in his Declaration is analyzed in the following paragraphs. This analysis, which is supported by Dr. Trumper's Declaration, demonstrates that the patents are valid despite the flawed arguments set forth by Dr. Feinberg.

(*Exhibit 3, Trumper Decl. @ page 9, paragraph 31).*

ii. The "Electric Cooking Appliance" of U.S. Patent No. 4,307,287 to Weiss

50. The focus of this patent is a high-temperature cooker with a fixed timer-based controller. The unit has an initial cooking phase which starts automatically, and during which "the vessel 12 rapidly reaches a high temperature which, for example, enables the user suitably to brown pieces of meat in fat…" Prof. Robotham's Declaration points-out that such high temperatures are not consistent with the processes required in a slow-cooker. The high-temperature cooker of Weiss is clearly not a slow-cooker, because in the initial high-power cooking phase it rapidly raises the temperature to a value only limited to 347 °F when the safety shutoff thermostat intervenes. Further, during normal cooking, nothing limits the temperature to values consistent with slow cooking. (*Exhibit 3, Trumper Decl. @ page 9-10, paragraph 32).*

51. The Weiss patent shows a metal cooking vessel in contact with a bottom-mounted heating element. (Although the body of the Weiss patent does not explicitly state the cooking vessel material, it is clear from mechanical and thermal considerations that the vessel is made of metal. For example, examining the cross-sectional view of Figure 2 of Weiss, the cooking vessel has thin walls which could not be made of a ceramic material; only a metal vessel could have this configuration. The attachment of the handles confirms this; a ceramic vessel could not tolerate the associated mechanical stresses. Finally, the high thermal gradients resulting from direct contact with the bottom-mounted heating elements would crack a ceramic vessel with such thin walls.) The high thermal conductivity of the configuration of Weiss creates direct heat transfer and rapid temperature rise of the items being cooked. This high thermal conductivity also facilitates browning, which process is one of the key features of this device. The cited high cooking temperatures of up to 347 °F are clearly far above the relatively low temperatures

typical of a slow-cooker. Such high-temperature cooking processes and configuration do not correspond with and teach against the use of a ceramic cooking unit with less direct heat transfer and relatively low cooking temperatures characteristic of a slow-cooker. (*Exhibit 3, Trumper Decl. @ page 10, paragraph 33).*

52. The Weiss patent does not show a programmable controller or programmable circuit. The control circuit 22 is just a simple timer circuit. Nothing in the patent suggests that it is programmable. The knobs 24, 26, 28 simply set the duration of timing signals emitted by the control circuit. Such a manually settable control circuit clearly cannot constitute a programmable controller. Further, the Weiss "controller" 22 has no input for temperature measurement, and thus cannot control temperature. It also has no input for measuring power either, and thus cannot control power. It is an open-loop device. It is an incorrect interpretation to suggest that the fixed on/off timer signals somehow control temperature; there is no way to determine what temperature will result in the Weiss device. In fact by using such a simple fixed timer circuit, this reference teaches away from the concept of using a programmable controller. Dr. Feinberg's analysis of the Weiss patent incorrectly refers to the control circuit 22 as a programmable controller, when control circuit 22 clearly does not include the features of a programmable controller. (*Exhibit 3, Trumper Decl. @ page 10, paragraph 34).*

53. Dr. Feinberg's Declaration in Support of Defendant's Motion for Summary Judgement, paragraph 5 states: "U.S. Patent No. 4,307,287 to Weiss' ("Weiss") selection of cooking temperature and method of maintaintaining [sic] the cooking temperature through application of adjustable power to the heating element is the same method described in both the '483 and '855 patents, in which power is supplied to the heating element to select and maintain the cooking temperature. ('483 patent, col. 3, ll. 9-12 and col. 6, ll. 1-12.)" (*Exhibit 3, Trumper*

Decl. @ page 11, paragraph 35).

54. This paragraph of Dr. Feinberg's declaration has numerous factual misrepresentations. The Weiss patent does not discloses a means for selecting cooking temperature. Additionally, Weiss does not disclose means to maintain (control) temperature. Accordingly, since Weiss does not disclose cooking temperature selection means nor temperature control means, Weiss cannot describe the same methods as claimed in the patents-in-suit. The adjustable power in Weiss is set via the thumbwheels by the user; in this context the user functions as the temperature controller who must act to adjust the power to a suitable level. (*Exhibit 3, Trumper Decl. @ page 11, paragraph 36).*

55. Considering the Weiss patent, there is no motivation to combine the teachings of this high-temperature cooker with a prior art slow-cooker or any of the other references to yield a programmable slow-cooker as described in claim 13 of the `483 patent, or claim 20 of the `855 patent, or the asserted dependent claims. One of ordinary skill would not look to the Weiss patent for adapting to slow-cooker design. (*Exhibit 3, Trumper Decl. @ page 11-12, paragraph 37).*

56. Accordingly, Dr. Feinberg's analysis of the Weiss patent with respect to invalidity of the patents-in-suit is incorrect for at least the reasons cited above. (*Exhibit 3, Trumper Decl. @ page 12, paragraph 38).*

iii. The "Cooking Apparatus for Fluid Container" U.S. Patent No. 4,817,510 to Kowalics

57. The focus of the Kowalics patent is a cooking apparatus for cooking soup and similar food products, with an air-pumped mixing system. Prof. Robotham's Declaration explains that the heating of the food items to the relatively high temperatures cited in the patent renders this device unsuitable for slow-cooking. As well, automatic stirring via heated air is not

consistent with the slow-cooker application. (*Exhibit 3, Trumper Decl. @ page 12, paragraph 39).*

58. The Kowalics patent shows a metal cooking vessel in contact with a bottom-mounted heating unit which is intended to create direct heat transfer facilitated by the air-driven stirring action. This does not correspond with and teaches against the use of a ceramic cooking unit, relatively low cooking temperatures, and less direct heat transfer characteristic of a slow-cooker. (*Exhibit 3, Trumper Decl. @ page 12, paragraph 40).*

59. The temperature and timing controls shown in the Kowalics patent are based upon relays and hard-wired temperature controllers, or upon hard-wired electronic temperature controls and fixed timing, switching, and logic circuits (Col. 5, l. 57 – Col. 12, l. 46). Such fixed electronic control and timing circuits are clearly not a programmable controller or circuit as defined in the claims at issue. Nothing in the patent suggests that these circuits are programmable. In fact, by using such simple fixed circuitry, this reference teaches away from the concept of using a programmable controller. Dr. Feinberg's analysis of the Kowalics patent incorrectly refers to the fixed electronic temperature control and timers as a programmable controller. (*Exhibit 3, Trumper Decl. @ page 40, paragraph 41).*

60. Considering the Kowalics patent, there is no motivation to combine the teachings of this soup cooker with a prior art slow-cooker or any of the other cited references to yield a programmable slow-cooker as described in claim 13 of the `483 patent, or claim 20 of the `855 patent, or the asserted dependent claims. One of ordinary skill would not look to the Kowalics patent for adapting to slow-cooker design. (*Exhibit 3, Trumper Decl. @ page 13, paragraph 42).*

61. Therefore, Dr. Feinberg's analysis of the Kowalics patent with respect to invalidity of the patents-in-suit is incorrect for at least the reasons cited above. (*Exhibit 3,*

Trumper Decl. @ page 13, paragraph 43).

62. Accordingly, whether taking alone or combination, the references cited by West Bend do not anticipate nor render obvious either claim 13 of the '483 patent or claim 20 of the '855 patent. Because those patents are not invalid, the dependent claims upon which they depend also are not invalid.

63. The Defendant's Statement Of Material Facts As To Which There Are No Genuine Issues Of Dispute And Which Entitle Defendants To Summary Judgment Of Invalidity, of December 1, 2006 is also flawed by significant errors. These are enumerated below with reference to paragraph numbers. (*Exhibit 3, Trumper Decl. @ page 13, paragraph 43).* As set forth in the Trumper Declaration beginning on page 13, at least the following are errors of fact in The Defendant's Statement of Material Facts:

Paragraph 5 states: "Weiss teaches a slow cooker in which the operator, using a "control circuit," sets "the average power [temperature]" and "duration [time]" of the cooking phase. *Id.* at col. 1, ll. 12-22. After the normal cooking phase selected by the user, the control circuit automatically proceeds to "phase M, at reduced power [temperature], in which the food is kept hot."

- Weiss does not disclose a slow-cooker. The control circuit only sets average power. It does not set temperature.

Paragraph 12 states: "Weiss discloses such a programmable slow cooker that cooks food at a constant, relatively low cooking temperature for a relatively long period of time. Ex. A, col. 1, ll. 23-28 and col. 4, ll. 47-54.**"**

- Weiss does not support this statement. Weiss is not programmable. Weiss is not a slow cooker. It does not maintain constant, relatively low cooking temperatures. Weiss does not meet the Court's programmable slow-cooker construction.

Paragraph 13 states: "Weiss discloses an "electronic control circuit 22" that permits an operator to select cooking temperature and cooking time. Ex. A at col. 2, ll. 61-68 and col. 4, ll. 47-57. Weiss has a control panel with regulating knobs that are used to select a cooking power (i.e., temperature) and to select a cooking time in hours and minutes. *Id.* at col. 2, ll. 61-68. Weiss' selection of cooking temperature and method of maintaining the cooking temperature through adjustable application of power to the heating element is the same method described in both the '483 and '855 patents, in which power is supplied to the heating element to select and maintain the cooking temperature. J.A. at MKM 0014, col. 3, ll. 9-12 and col. 6, ll. 1-12; Feinberg Decl., Nov. 30, 20063 ¶ 5.**"**

- The regulating knobs do not set temperature. The Weiss patent has no means to select cooking temperature. It also has no means to maintain (control) temperature. Since these means do not exist, they can not be the same as anything, much less a feature of the patents-in-suit.

Paragraph 14 states: "Weiss discloses that its entire programmable controller (control circuit 22) is mounted to a housing,…**"**

- Incorrectly refers to Weiss having a programmable controller.

Paragraph 15 states that in Weiss: "a selected cooking temperature is automatically lowered after a cooking time elapses. **"**

- There is no selected cooking temperature in Weiss, nor is there any temperature control. Temperature cannot be selected, nor can it be automatically lowered.

Paragraph 16 states: "In the Weiss cooker, the temperature control disc 24 is marked in ten power or temperature increments, and the time control discs 26, 28 are incrementally marked with time settings. Ex. A at col. 3, ll. 62- 65.**"**

- The control disk 24 does not set temperature. Temperature cannot be changed in increments.

Paragraph 27 states: "Weiss discloses an "electronic control circuit 22" that allows the user to program both the cooking temperature and desired time for cooking. *Id.* at col. 2, ll. 61-68 and col. 4, ll. 47-57. This control circuit 22 also automatically changes the heating element to an automatic warm mode once the set cooking time has expired. When Weiss is set to its cooking mode "II," after the food is cooked at the selected time and temperature, referred to as "cooking phase C," this phase is automatically "followed by the phase M, at reduced power, in which the food is kept hot. *Id.* at col. 4, ll. 66-68. In other words, when the cooking time set by the user expires, Weiss' control circuit 22 reduces power to a warm mode during which the food is maintained at a predetermined temperature less than the cooking temperature.**"**

- The user cannot program anything in Weiss; it doesn't have a programmable controller. The cooking temperature cannot be set in Weiss. Weiss cannot maintain food at any predetermined temperature less than the cooking temperature.

Paragraph 32 states: "The user must select either between mode "I," in which cooking temperature and cooking time are selected, or mode "II," in which a user selects a cooking time and temperature and after the elapsed time the cooker is automatically switches to a lower temperature warm mode.**"**

- In error because cooking temperature cannot be selected in Weiss.

Paragraph 33 states: "In the Weiss programmable cooker, subsequent "turns" of the regulating discs, …**"**

- In error because Weiss is not a programmable cooker.

(*Exhibit 3, Trumper Decl. @ pages 13-16 @ paragraph 43).*

G. Mr. Hlava, an Inventor of the Holmes' Patent Testified That He Had No Motivation to Combine or Look at Other Devices

64. The testimony of one of the inventors of the asserted Holmes patents, Mr. Lorens Hlava was taken pursuant to subpoena by West Bend's Counsel on Thursday, December 14, 2006 in Tulsa, Oklahoma. West Bend's counsel examined Mr. Hlava with regard to other programmable units he looked at in making the invention. (pages 1 and 2 and 71-73 of the deposition transcript of Mr. Hlava are *attached as Exhibit B to the Declaration of Alan M. Sack in Support of Holmes' Opposition to Defendants' Motion for Partial Summary Judgment on Invalidity filed as* ***Exhibit 1*** *to this Statement*[1])

65. Mr. Hlava, testified at page 71, line 12 to page 72, line 1, as follows:

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Q Had you been aware of programmability as a feature on other small appliances at the time you started to work on this programmable slow cooker?
A Not that I remember.
Q And you didn't investigate or explore how programmability might have been used on other small appliances when you began your work on this project?
A Again, I don't know that there were any other programmable cooking units out there.
Q And by programmable cooking units are you referring to slow cookers specifically or are you talking more broadly than that?
A I think more broadly.
Q So you're thinking of perhaps bread makers

[1] The Official Transcript delivered immediately preceding filing of this response differs from the original electronic copy relied upon above by 1 line.

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or coffee makers or other small appliances?

66. Mr. Hlava testified that he had not looked other appliances because they were so different from slow-cookers, due both to the heat generated by slow cookers and, due to these appliances not being made to operate for 8, 10 or 12 hours continuously, as is the case with slow cookers. See, Hlava deposition transcript at page 72, lines 11 to page 73, line 9, as follows:

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A Well, a coffee maker or a bread maker is in trying to take those units and compare them to a slow cooker is like comparing apples and oranges.
Q Okay.
A I mean, they're both fruit but that's where the similarity ends.
Q Why wouldn't you have compared them? What are the differences --
MR. SACK: Objection; asked and answered.
A Excuse me?
Q (By Mr. Sarskas) What are the differences that prevent you from being able to make a comparison?
A Again, because they were unrelated products. And when we do that we would look at

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competitive products.
Q I understand that you think that they're unrelated products, but I'm wondering specifically what differences between the products make the comparison not very useful in your view?
A Well, one aspect would be the heat generated by those products. Plus those products are not made to operate for eight, ten, or twelve hours continuously.

H. Holmes Has Provided Overwhelming Evidence of Secondary Considerations of Non-Obviousness

67. Contrary to West Bend's assertions, Holmes has provided documents showing overwhelming evidence of secondary consideration which support non-obviousness of the asserted claims of the '483 and '855 patents, namely claim 13 of the '483 patent and claim 20 of

the '855 patent. Not only has Holmes provided the underlying documents supporting such secondary considerations, but has also provided West Bend with a Declaration under oath of Mr. Bart Plaumann, dated October 6, 2006, which was filed in the United States Patent and Trademark Office during the prosecution of a related patent application. Mr. Plaumann is the former Senior Vice President and General Manager of Kitchen SBU of Jarden Consumer Solutions, formerly known as The Holmes Group, (*A copy of Mr. Plaumann's Declaration, and supporting Exhibits, provided to Defendants in discovery is attached as Exhibit C to the Declaration of Alan M. Sack in Support of Holmes' Opposition to Defendants' Motion for Partial Summary Judgment on Invalidity filed as* ***Exhibit 1*** *to this Statement*). In addition, Mr. Plaumann, was specifically designated by Holmes to testify under Rule 30(b)(6) on Holmes' counterclaims regarding secondary considerations of non-obviousness. Specifically to "**Topic 25**" of West Bend's deposition notice, namely:

> "Holmes contentions, if any, that there are secondary considerations of non-obviousness supporting the validity of the '483 and '855 patents including but not limited to any alleged commercial success of embodiments of the '483 and '855 patents; any alleged long felt but unmet need for the inventions embodied in the '483 and '855 patents; any alleged failure of others to find a solution for the problems solved by the '483 and '855 patents; and any alleged licensing of the '483 and '855 patents."

See, Holmes' response to Defendants' Amended First Rule 30(b)(6) deposition notice, attached as Exhibit 2 to the transcript of the examination of the Holmes Group under Rule 30(b)(6), in which Mr. Plaumann testified (*a copy of Mr. Plaumann's deposition testimony, pages 1-5 and 23-29 under Rule 30(b)(6) as well as deposition Exhibits 2 and 19 are attached as Exhibit D to the Declaration of Alan M. Sack in Support of Holmes' Opposition to Defendants' Motion for Partial Summary Judgment on Invalidity filed as* ***Exhibit 1*** *to this Statement).*

68. Mr. Plaumann's Declaration was marked as Exhibit 19 to the deposition

transcript. Mr. Plaumann was extensively examined on his declaration over more than 100 pages of the transcript.

69. In his Declaration, Mr. Plaumann explained that electric slow-cookers have been in the marketplace for at least 30 years. During this time the owner of the present application and its predecessors have been marketing slow-cookers under the trademarks Crock•Pot® and Rival®. In the past, as well as today, slow-cookers have been marketed with manual controls to set a cooking temperature such as low and high and off. *(Exhibit C to Exhibit 1; Plaumann Declaration @ page 2, paragraph 4).*

70. Slow-cookers are viewed as generally imprecise cooking devices that did not need any form of exacting control. Since the amount of cooking time is relatively long and the food is cooked at a relatively low temperature, there was not seen a need for including a timer on a slow-cooker. If the cooking was started in the morning, the food would be cooked and ready to serve at dinner time. The Crock•Pot® brand has been, and continues to be, marketed under the slogan, "cooks all day while the cook's away." *(Exhibit C to Exhibit 1; Plaumann Declaration @ page 2, paragraph 5).*

71. However, the inventors did recognize problems with the traditional prior art slow-cookers. Food if left too long in the slow-cooker could dry out or become overcooked. Also, users were showing a concern about leaving their slow-cookers on too long. The inventors recognized that there would be an advantage to having more control over the cooking process. Thus, there was a need in the marketplace for a programmable slow-cooker which more accurately controls a cooking time and temperature as well as provide a keep warm feature should the user not be available to attend to the appliance at the end of the set cooking time. *(Exhibit C to Exhibit 1; Plaumann Declaration @ page 2, paragraph 6).*

72. In 2000, Jarden's predecessor, The Holmes Group LLC., introduced the first programmable slow-cooker into the marketplace. The programmable slow-cooker gave the user the ability to set a cooking time and temperature. At the end of the cooking time, the power to the heating element is automatically reduced to a warm setting such that the food would be kept at a proper serving temperature and prevent spoilage if the slow-cooker were left unattended. Since its introduction, the programmable slow-cooker with auto keep warm feature has been a tremendous commercial sales success. Since 2000, sales of programmable slow-cookers have steadily increased. Today, programmable slow-cookers account for over 40% of Holmes' slow-cooker sales, which sales exceed one hundred million dollars ($100,000,000). *(Exhibit C to Exhibit 1; Plaumann Declaration @ pages 2-3, paragraph 7).*

73. Programmable slow-cookers are the same as traditional slow-cookers but for the programmable features which permit a user to set a cooking time and temperature and the temperature being automatically reduced at the end of the cook time to keep the food warm. The programmable slow-cooker is a premium product which costs more that the traditional slow-cooker. The success of the programmable slow-cooker in the marketplace is directly attributable the programmable features. *(Exhibit C to Exhibit 1; Plaumann Declaration @ page 3, paragraph 8).*

74. Once the programmable slow-cooker established itself as a success in the market, many competitors have attempted to copy it. These competitors each market a programmable slow-cooker that permits a user to set a time and temperature and also includes an automatic warm feature after the expiration of the set timed cooking cycle. Jarden has contacted nine (9) different competitors that have started marketing programmable slow-cookers, and is currently engaged in lawsuits with two (2) of those companies based on patents related to the pending

application. The two pending lawsuits are:

75. The *Holmes Group v. West Bend Housewares, LLC et al.* 05-cv-11367 pending in the District of Massachusetts; and

76. *The Holmes Group v. Euro-Pro Operating, LLC* 05-cv-10504, pending in the District of Massachusetts. *(Exhibit C to Exhibit 1; Plaumann Declaration @ page 3, paragraph 9).*

77. Homes' competitors promote the automatic keep warm feature on their packaging, which demonstrates its significance in the market. Exhibits A and B. For example, Euro-Pro's product packaging prominently states, "Serve & Warm Automatically initiates the keep warm setting when cooking is complete…" Exhibit A. West Bend on its product packaging prominently states, "Electronic control automatically shifts to Keep Warm." Exhibit B. *(Exhibit C to Exhibit 1; Plaumann Declaration @ pages 3-4, paragraph 10).*

78. The significance of a slow cooker having the programmable features including the automatic keep warm mode has been recognized by the industry. Eating Well magazine in its

79. March 2006 issue praises the Rival® Smart-Pot programmable slow cooker by stating, "[b]ut perhaps our favorite feature is the automatic shift-to-warm setting, which allows your meal to cook for its predetermined time and then switch to a setting that keeps the food at a safe temperature until you're ready to eat." Exhibit C. The importance of Jarden's Smart-Pot's automatic shift to warm feature is also indicated on Eating Well's web site. Exhibit D. Jarden's programmable slow cooker and its automatic keep warm feature was also highlighted in a February 2006 issue of Woman's Day magazine. Exhibit E. *(Exhibit C to Exhibit 1; Plaumann Declaration @ page 4, paragraph 11).*

80. The significance of the automatic shift to a keep warm mode after a cooking time

has ended has been further recognized by the media. The Akron Beacon Journal states:

> The improvements in the new generation of slow cookers are impressive: The most sophisticated programmable pots (about $70) can be set to cook in both hour and half-hour increments, plus they switch to a warm mode when the cooking time is up.

Exhibit F.

The Miami Herald wrote:

> Several manufactures offer programmable slow cookers. When cooking time is up, the pots automatically shift into 'warm' mode-- the perfect solution to an eight-hour recipe and a 10-hour workday.

Exhibit G.

81. The media has clearly recognized the importance and benefits of the programmable slow cooker that automatically shifts to a keep warm mode at the end of a cooking time. *(Exhibit C to Exhibit 1; Plaumann Declaration @ page4, paragraph 12*).

82. During the deposition, Mr. Plaumann was examined regarding the correlation between the claimed subject matter and the commercial success of the Holmes slow-cookers. At page 95 of the transcript, beginning at line 10, West Bend examined Mr. Plaumann who testified that the overwhelming commercial success of the programmable slow cookers was due to the programmable auto shift to keep warm feature.

> Q - You said before that consumer research has revealed to Holmes that the commercial success of the programmable slow cooker is due outstandingly to the auto shift to warm feature; is that accurate?
> A - That's accurate.
> Q - What is that statement based on?
> A - It's based on an accumulation of research that we've done. And it's also based on just the facts of look at our business. You know, we went from zero in 1999 before the introduction of any programmable slow cookers to today it's 40 percent of our business. So the consumers have responded very strongly to the programmable part of it. And we have research that shows that the automatic shift to keep warm is an

extremely important feature.

Q - Do you equate automatic shift to warm and programmable as being the same thing?

A - No. I mean they -- you can have other features on a programmable slow cooker that don't necessarily have that automatic shift to keep warm. But all of our units that are programmable have that feature.

Q - And what has the consumer research told you about some of the other features on programmable slow cookers besides automatic shift to warm?

A - I can't specifically recall anything else to the programmable aspect of it besides that.

III CONCLUSION

83. The declarations and testimony provided by Holmes establish a material issue of fact sufficient to preclude a finding of summary judgment of invalidity of U.S. Patent Nos. 6,573,483 and 6,740,855 (*see paragraphs 1-87 above).*

Respectfully submitted,

SUNBEAM PRODUCTS, INC.,
f/k/a THE HOLMES GROUP
By its Attorneys,

Dated: December 22, 2006

/s/ Alan M. Sack/

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CERTIFICATE OF SERVICE

I hereby certify that this document filed through the ECF system will be sent electronically to the registered participants as identified on the Notice of Electronic Filing (NEF) and paper copies will be sent to those indicated as non-registered participants on December 22, 2006.

/s/ Alan M. Sack/
Alan M. Sack

EXHIBIT 1

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF MASSACHUSETTS

THE HOLMES GROUP, INC.,	:	
Plaintiff/Counterclaim-Defendant,	:	Civil Action No. 1: 05-CV-11367 WGY (Alexander, M.J.)
v.	:	
WEST BEND HOUSEWARES, LLC and FOCUS PRODUCTS GROUP, L.L.C.,	:	
Defendants/Counterclaim-Plaintiffs.	:	

DECLARATION OF ALAN M. SACK IN SUPPORT OF HOLMES' OPPOSITION TO DEFENDANTS' MOTION FOR PARTIAL SUMMARY JUDGMENT ON INVALIDITY OF U.S. PATENT NOS. 6,573,483 AND 6,740,855

I, Alan M. Sack, do hereby declare and state as follows:

1. I am a member of the law firm of Hoffmann & Baron, LLP, the counsel of record representing the Plaintiff, The Holmes Group, Inc. ("Holmes") in the above-identified litigation.

2. I am admitted and in good standing before the bars of the States of New York and New Jersey, and have been admitted *pro hac vice* in this Civil Action.

3. I submit this Declaration in support of Holmes' Opposition to Defendants' Motion for Partial Summary Judgment on Invalidity of U.S. Patent Nos. 6,573,483 and 6,740,855.

4. Attached as Exhibit A to this Declaration are the first three pages (1-3) and pages 12-15, 33-34, 18-19, 60, 186-187 and 247 of the deposition transcript of

Defendant's expert, Dr. Feinberg, taken by me on December 12, 2006, as supplied by the court reporter.

5. Attached as Exhibit B to this Declaration are the first three pages (1-3) and pages 71-73 of the deposition transcript of Lorens G. Hlava taken pursuant to subpoena by West Bend's Counsel on Thursday, December 14, 2006 in Tulsa, Oklahoma, as supplied by the court reporter.

6. Attached as Exhibit C to this Declaration is a true and complete copy of the Declaration of Mr. Bart Plaumann and supporting Exhibits, dated October 6, 2006, as provided to Defendants, which was filed in the United States Patent and Trademark Office during the prosecution of a related patent application. Mr. Plaumann is the former Senior Vice President and General Manager of Kitchen SBU of Jarden Consumer Solutions, formerly known as The Holmes Group.

7. Attached as Exhibit D to this Declaration are the first five pages (1-5) and pages 23-129 of the Rule 30(b)(6) deposition transcript of Plaintiff, as well as Deposition Exhibits 2 and 19 referred therein, in which Mr. Bart Plaumann was examined on the subject of his Declaration by West Bend's Counsel on November 16, 2006, as supplied by the court reporter.

I declare under penalty of perjury that the foregoing is true and correct.

Executed this twenty-second (22nd) day of December, 2006.

Alan M. Sack

EXHIBIT A

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF MASSACHUSETTS

THE HOLMES GROUP, INC.,
Plaintiff and
Counter-Defendant,

-vs- Case No. 05-CV-11367 WGY

WEST BEND HOUSEWARES, LLC and
FOCUS PRODUCTS GROUP, LLC,
Defendants and
Counter-Plaintiffs.
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EXAMINATION OF

BARRY NORMAN FEINBERG, PH.D., P.E.

December 12, 2006
9:06 a.m.

100 East Wisconsin Avenue
Milwaukee, Wisconsin

Jacqueline R. Rupnow, RPR
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Examination of
Barry Norman Feinberg, Ph.D., P.E.
December 12, 2006

BARRY NORMAN FEINBERG, Ph.D., P.E., called as a witness herein, having been first duly sworn on oath, was examined and testified as follows:

EXAMINATION

BY-MR.SACK:

Q. Could you state your name for the record, please, sir?

A. Barry Norman Feinberg.

Q. And where do you reside?

A. In Chicago, Illinois.

Q. Would you like me to call you Dr. Feinberg, Mr. Feinberg?

A. Whatever you're comfortable with. Doctor is okay, Mr. is okay, whatever works for you.

Q. Do you know you're here testifying today pursuant to a notice of deposition in this case?

A. I have received no notice.

Q. I'd like to mark as Exhibit 1 the notice of deposition of Dr. Feinberg.

look at the West Bend product and determine whether the West Bend product infringes the patents-in-suit.

BY MR. SACK:

Q. Do you have expertise in doing infringement analysis of patents?

A. Well, I don't know what you mean by expertise. I've done a lot of infringement analysis, yes.

Q. Let's turn to your CV, and let's talk about your education a little bit. After high school, what was your first university experience?

A. I went to the University of Michigan.

Q. When? I don't believe there is a date here.

A. I went there between 1957 -- actually '58 and '62.

Q. '57 or '58, I'm sorry?

A. I was sort of one of these January graduates, so I was kind of in the Netherlands. So say '57 to '62.

Q. And University of Michigan?

A. Correct.

Q. What degree did you receive from the University of Michigan?
A. I received two degrees.
Q. And can you tell me what they are?
A. I received a Bachelor of Science in electrical engineering, and I received a Bachelor of Science in engineering mathematics, which is applied mathematics.
Q. At that time were you familiar with microprocessors?
A. No, they hadn't been invented yet.
Q. I didn't think so, but I wasn't sure.
A. I hate to say that.
MR. SACK: Off the record.
(Discussion off the record.)
BY MR. SACK:
Q. Now, after your studies at University of Michigan, what did you do at that point?
A. I took a position at the University of Louisville as an instructor of mathematics, and at the same time began my studies for a Master's of electrical engineering.

Q. So you're a mathematics instructor, so that was when?
A. That was at the University of Louisville from 1962 to 1964.
Q. So is that in your CV down where you have employment '62 to '64, you're in the Master's program, also?
A. Master's of electrical engineering, yes.
Q. And were programmable controllers invented at that point?
A. Yes, I believe so.
Q. Did you study them at that point?
A. Yes, I studied automatic control systems.
Q. For?
A. What do you mean for what?
Q. For what kind of devices.
A. For any kind of automatic feedback control.
Q. And do you recall what kind of microprocessor they used?
A. Well, feedback control systems used other aspects of electronics and mechanics, also, so we didn't study one specific one,

let's put it that way. We studied the general ideas of control systems, controllers, and feedback.

Q. Did you study microprocessors at that time?

A. Specifically, no. We did solid state electronics if that's helpful.

Q. You mean like outbands and AND gates and --

A. Yes, we did that, and also got into their composition, how they worked, continued in the solid state physics.

Q. How do they work?

A. How does what work?

Q. Solid state electronics.

A. Do you really want to take the time to go through that?

Q. Sure.

A. Well, when you say solid state, are we talking take a basic idea of let's say a transistor or are we talking integrated circuits?

Q. What about a logic device, such as an AND gate?

A. Well, I can tell you how that

analyses, like stability analysis, for instance.

Q. Were computers controlling these mechanical systems or was this a mechanical feedback system?

A. No, the computer was used in the course, but not as part of the feedback loop.

Q. The feedback loop was mechanical?

A. Some of the systems we studied had mechanical feedback, yes. Some had hydraulic feedback.

Q. Now, what's the next course, nonlinear feedback control systems?

A. Well, the previous course that we just talked about linear control systems, basically systems based on linearative operation, but there are nonlinear systems where the control signals or part of the signal are nonlinear, and that's a whole area of study all by itself in terms of it's ability to perform and be stable.

Q. And what kind of mechanical systems were you studying there?

A. We studied, for instance, relay systems, where the signal was basically a

binary on/off system running through a processing system to determine whether that system could be stable or not. I mean a typical example of a nonlinear system is let's just take a thermostat. You set a thermostat, all right, for a particular temperature and the thermostat is either on or off, and you have to regulate something based on this on and off system.

Q. Were you using microprocessors in this course to regulate these systems?

A. No, not in that course.

Q. Were you using a computer in this course to regulate the system?

A. Not to regulate. Computers were used as a computation aid to analyze the system.

Q. Now, you said you had a list of other courses that you taught. Where is that in your CV?

A. Page .11.

Q. Just going back, when did you teach that nonlinear feedback control system?

A. When I was Cleveland State University.

be.

Q. Do they have memory?

A. For instance, operational amplifiers originally were discrete component amplifiers, basically high gain amplifiers at one point, so it just depends.

Q. How about these days?

A. Well, I would say generally speaking most designs are done with solid state electronics integrated circuits.

Q. Do AND gates or NAND gates or outbands have any memories?

A. What do you mean by memory?

Q. Well, how would you define memory?

A. Well, in terms of solid state, memory would be when a particular binary pattern is put in that the pattern isn't lost, it stays there, and can be retained, obtained again.

Q. Would you say that an AND or NAND gate has memory?

A. Well, from my perspective, I would say no, probably doesn't have memory in the sense that we talk about memory chips and computer memory, et cetera.

Q. Were these devices that you stated back in '62, '64, at the University of Michigan in your Master's program?

A. Well, my Master's program was at the University of Louisville.

Q. I'm sorry, University of Louisville. Were these devices that you stated in the University of Louisville at your Master's program?

A. We studied some solid state electronics, yes, but of course, in '62 and '64, they didn't have the kind of integrated circuits they have today.

Q. After you got your degree from the University of Louisville, excuse me, what courses did you teach there as an instructor?

A. At Louisville?

Q. Yes.

A. Calculus, differential equations and statistics.

Q. Did you teach any mechanical engineering courses?

A. No.

Q. Electrical engineering courses?

A. No.

Q. Is that the only project you had for Kendall?
A. No.
Q. What other project did you have at Kendall?
A. I did one on localized hyperbaric oxygen therapy.
Q. And what specifically did you do on that project?
A. Basically developed the theory of operation and designed the -- it was basically a nonelectrical, it was a pneumatic mechanical system, and had that built to operate the system.
Q. Was it using a microprocessor control?
A. No, relay logic.
Q. What's relay logic?
A. Well, used relay as a binary device, because since we were using oxygen, we didn't want anything electrical, so it used pneumatic type relays and valves and things.
Q. Are relays programmable?
A. I don't know about the current

literal infringement and doctrine of equivalents, these are their words as told to me.

Q. So their words, and then they told you?

A. They explained the whole mechanism of doctrine of equivalents, they've explained to me literal infringement.

Q. Okay. What's the level of ordinary skill in the art with regard to the Holmes patents-in-suit?

A. Some of the -- someone with a bachelor's degree, bachelor of science degree, and/or designer having several years of experience in design, development of cooking or electrical, electronic operated appliances.

Q. I see you're reading. Are these your words?

A. Yes, these are mine.

Q. You wrote -- you keyed this in?

A. I did not key it in. These are my words, what I told them, what I thought was ordinary skill in the art.

Q. What does it mean and/or in this definition?

A. Well, the person could have a bachelor of science degree, let's say in engineering, and also be a designer of several years experience, or could simply be a designer with several years experience or a person with a bachelor of science degree, let's say in electrical engineering, could do all this, so.

Q. So a person with bachelor of science degree in electrical engineering with no experience in the design or manufacture of cooking items or slow cookers is one of ordinary skill in the art under your interpretation?

A. Well, yes, because of the fact that people with electrical engineering, if you look at the particular device we're talking about, it's a very simple, straight-forward device.

Q. Right out of college?

A. Yes, and I taught these people so I know what they know. I taught them. My students would be typical of the kinds of persons skilled in the art with a degree, so I know what they know.

toaster oven, for instance.
A. Now, is this timer an integral part of it or is this a separate unit?
Q. Part of it. Say it's part of it, like your typical toaster oven and it goes tick, tick and it clicks and it times.
A. You have an old one.
Q. How do you differentiate that from a programmable circuit, a programmable control?
A. Well, basically the programmable circuit basically is a circuit that allows the user to program, in this case, the time and temperature.
Q. So if you have an oven that you can set the time on the clock --
A. And the temperature, yes, you have a programmable oven.
Q. That's programmable?
A. It is. I set the temperature, and I set the cook time, I can even set a delay time if I wish. I can even use it as a slow cooker.
Q. Without the delay time, is it programmable?
A. Yes.

EXHIBIT B

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF MASSACHUSETTS

THE HOLMES GROUP, INC.,

Plaintiff/Counter-Defendant,

VS.

WEST BEND HOUSEWARES, LLC and FOCUS PRODUCTS GROUP, LLC,

Defendant/Counter-Plaintiffs.

COPY

Case No. 05-CV-11367-WGY

THE VIDEOTAPED DEPOSITION OF LORENS HLAVA, taken on behalf of the Defendants, on the 14th day of December, 2006, between 9:30 a.m. and 2:47 p.m., pursuant to Oklahoma Code, at the Radisson Inn, 2201 N. 77th East Avenue, Tulsa, Oklahoma, before Michele Vest, a Certified Shorthand Reporter in and for the State of Oklahoma.

APPEARANCES:

For the Plaintiff: MR. ALAN M. SACK
Hoffmann & Baron, LLP
6900 Jericho Turnpike
Syosset, New York 11791-4407

For the Defendants: MR. S. EDWARD SARSKAS
Michael Best
100 East Wisconsin Avenue
Suite 3300
Milwaukee, Wisconsin 53202-4108

Videographer: MR. MARK VONLANKEN

INDEX

VIDEOGRAPHER: We are now on the record. This is the deposition of the Holmes Group versus West Bend Housewares. It is Thursday, December 14, 2006. The time is approximately 9:39. You may swear in the witness.

LORENS HLAVA,

after having been first duly sworn to tell the truth, the whole truth, and nothing but the truth, testified as follows:

DIRECT EXAMINATION

BY MR. SARSKAS:

Q Good morning, sir. Could you please state and spell your name for the record.

A My name is Lorens spelled L-O-R-E-N-S, Hlava spelled H-L-A-V-A.

Q Do you understand why you're here this morning, sir?

A To give a deposition.

Q Have you ever given a deposition before?

A Yes.

Q When did you last give a deposition?

A Approximately 15 years ago.

Q And what caused you to give that deposition? What kind of case was it?

A It was a patent infringement lawsuit.

A There was I think a five quart round unit, and I think the model number on that was a 3355, but that was the only other.

Q And you looked at that one specifically because marketing asked you to?

A Right.

Q And the reason they asked you to look at that one specifically was because essentially they wanted to take that and add programmability to it?

A Right.

Q Had you been aware of programmability as a feature on other small appliances at the time you started to work on this programmable slow cooker?

A Not that I remember.

Q And you didn't investigate or explore how programmability might have been used on other small appliances when you began your work on this project?

A Again, I don't know that there were any other programmable cooking units out there.

Q And by programmable cooking units are you referring to slow cookers specifically or are you talking more broadly than that?

A I think more broadly.

Q So you're thinking of perhaps bread makers or coffee makers or other small appliances?

MR. SACK: Objection; the question mischaracterizes the witness' testimony.

A We did not look at any coffee makers, bread makers that were programmable because those products were totally unrelated from the slow cookers or the heated cooking products per se, if there were any out there at the time.

Q When you say they're different, what do you mean by that?

A Well, a coffee maker or a bread maker is -- in trying to take those units and compare them to a slow cooker is like comparing apples and oranges.

Q Okay.

A I mean, they're both fruit but that's where the similarity ends.

Q Why wouldn't you have compared them? What are the differences --

MR. SACK: Objection; asked and answered.

A Excuse me?

Q (By Mr. Sarskas) What are the differences that prevent you from being able to make a comparison?

A Again, because they were unrelated products. And when we do that we would look at

competitive products.

Q I understand that you think that they're unrelated products, but I'm wondering specifically what differences between the products make the comparison not very useful in your view?

A Well, one aspect would be the heat generated by those products. Plus those products are not made to operate for eight, ten, or twelve hours continuously.

Q Any other differences?

A That's all that I can come up with at this time.

Q I'm putting in front of you a document that identifies the Rival automatic rice cooker steam model 2410. Do you see that?

A Yes.

Q Are you familiar with that product?

MR. SACK: Can I have a copy please?

A Other than seeing it, that is the limit of my familiarity with it.

Q (By Mr. Sarskas) You didn't refer to it in your course of designing the programmable slow cooker?

A No.

Q On the second page under the heading

EXHIBIT C

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s)	:	DeCobert, et al.
Application No.	:	11/091,047
Filed	:	March 28, 2005
Title	:	PROGRAMMABLE SLOW-COOKER APPLIANCE
TC/A.U.	:	3742
Examiner	:	Joseph Pelham
Conf. No.	:	3586
Docket No.	:	717-675 CIP/CON
Dated	:	October 6, 2006

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

I hereby certify this correspondence is being deposited with the United States Postal Service as first class mail, postpaid in an envelope, addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450
on 10-6-2006
Signed: Anthony C Bennett

DECLARATION UNDER 37 C.F.R §1.132 OF BART J. PLAUMANN

Sir:

I, Bart J. Plaumann, declare as follows:

1. I am the Senior Vice President and General Manager Kitchen SBU of Jarden Consumer Solutions, the Owner of the above-identified patent application (hereinafter "Jarden").

2. I have been in the position of Senior Vice President and General Manager for the last 4 years, and I have worked in the sales and marketing of slow-cookers since 2000.

3. My position includes overseeing the sales and marketing of electric slow-cookers including programmable slow-cookers which are the subject of the above referenced patent application.

4. Electric slow-cookers have been in the marketplace for at least 30 years. During this time the owner of the present application and it predecessors have been marketing slow-cookers under the trademarks Crock•Pot® and Rival®. In the past, as well as today, slow-cookers have been marketed with manual controls to set a cooking temperature such as low and high and off.

5. Slow-cookers are viewed as generally imprecise cooking devices that did not need any form of exacting control. Since the amount of cooking time is relatively long and the food is cooked at a relatively low temperature, there was not seen a need for including a timer on a slow-cooker. If the cooking was started in the morning, the food would be cooked and ready to serve at dinner time. The Crock•Pot® brand has been, and continues to be, marketed under the slogan, "cooks all day while the cook's away."

6. However, the inventors did recognize problems with the traditional prior art slow-cookers. Food if left too long in the slow-cooker could dry out or become overcooked. Also, users were showing a concern about leaving their slow-cookers on too long. The inventors recognized that there would be an advantage to having more control over the cooking process. Thus, there was a need in the marketplace for a programmable slow-cooker which more accurately controls a cooking time and temperature as well as provide a keep warm feature should the user not be available to attend to the appliance at the end of the set cooking time.

7. In 2000, Jarden's predecessor, The Holmes Group LLC., introduced the first programmable slow-cooker into the marketplace. The programmable slow-cooker gave the user the ability to set a cooking time and temperature. At the end of the cooking time, the power to the heating element is automatically reduced to a warm setting such that the food would be kept

at a proper serving temperature and prevent spoilage if the slow-cooker were left unattended. Since its introduction, the programmable slow-cooker with auto keep warm feature has been a tremendous commercial sales success. Since 2000, sales of programmable slow-cookers have steadily increased. Today, programmable slow-cookers account for over 40% of our slow-cooker sales, which sales exceed one hundred million dollars ($100,000,000).

8. Programmable slow-cookers are the same as traditional slow-cookers but for the programmable features which permit a user to set a cooking time and temperature and the temperature being automatically reduced at the end of the cook time to keep the food warm. The programmable slow-cooker is a premium product which costs more that the traditional slow-cooker. The success of the programmable slow-cooker in the marketplace is directly attributable the programmable features.

9. Once the programmable slow-cooker established itself as a success in the market, many competitors have attempted to copy it. These competitors each market a programmable slow-cooker that permits a user to set a time and temperature and also includes an automatic warm feature after the expiration of the set timed cooking cycle. Jarden has contacted nine (9) different competitors that have started marketing programmable slow-cookers, and is currently engaged in lawsuits with two (2) of those companies based on patents related to the pending application. The two pending lawsuits are:

The *Holmes Group v. West Bend Housewares, LLC et al.* 05-cv-11367 pending in the District of Massachusetts; and

The Holmes Group v. Euro-Pro Operating, LLC 05-cv-10504, pending in the District of Massachusetts.

10. Our competitors promote the automatic keep warm feature on their packaging, which demonstrates its significance in the market. Exhibits A and B. For example, Euro-Pro's product packaging prominently states, "Serve & Warm Automatically initiates the keep warm setting when cooking is complete…" Exhibit A. West Bend on its product packaging prominently states, "Electronic control automatically shifts to Keep Warm." Exhibit B.

11. The significance of a slow cooker having the programmable features including the automatic keep warm mode has been recognized by the industry. Eating Well magazine in its March 2006 issue praises the Rival® Smart-Pot programmable slow cooker by stating, "[b]ut perhaps our favorite feature is the automatic shift-to-warm setting, which allows your meal to cook for its predetermined time and then switch to a setting that keeps the food at a safe temperature until you're ready to eat." Exhibit C. The importance of Jarden's Smart-Pot's automatic shift to warm feature is also indicated on Eating Well's web site. Exhibit D. Jarden's programmable slow cooker and its automatic keep warm feature was also highlighted in a February 2006 issue of Woman's Day magazine. Exhibit E.

12. The significance of the automatic shift to a keep warm mode after a cooking time has ended has been further recognized by the media. The Akron Beacon Journal states:

> The improvements in the new generation of slow cookers are impressive: The most sophisticated programmable pots (about $70) can be set to cook in both hour and half-hour increments, plus they switch to a warm mode when the cooking time is up.

Exhibit F.

> The Miami Herald wrote:
> Several manufactures offer programmable slow cookers. When cooking time is up, the pots automatically shift into 'warm' mode-- the perfect solution to an eight-hour recipe and a 10-hour workday.

Exhibit G.

The media has clearly recognized the importance and benefits of the programmable slow cooker that automatically shifts to a keep warm mode at the end of a cooking time.

I hereby declare that all statement made herein of my own knowledge are true and that all statements made on information and belief are believed to be true, that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment or both under Section 1001 of Title 18 of the United States Code, and that such willful statements may jeopardize the validity of the application or any patent issued thereon.

Respectfully submitted,

Dated: 10/6/06

Bart J. Plaumann

Exhibit A

EURO-PRO

Programmable Intelligent Gourmet Slow Cooker

LARGE FAMILY SIZE • 6.5 QUART

Slow Cooking is Easier than Ever!
Simply set the time and temperature and the slow cooker will do the rest.

Intelligent Controls

Exclusive electronic control displays the current and set temperature of the cooker. No more guesswork.

Programmable Setting

Program the desired cooking hours and temperature for precise cooking every time.

Serve & Warm

Automatically initiates the keep warm setting when cooking is complete OR choose the warm setting when using the cooker as a buffet server.

BONUS

Stainless Steel Slow Cooker

Great for personal meals, hot fudge and more

KC2761

4 Programmable settings • Wrap around even heat • Dishwasher safe removable stoneware

THG00008773

EURO-PRO

Programmable Intelligent Gourmet Slow Cooker

LARGE FAMILY SIZE • 6.5 QUART

Slow Cooking is Easier than Ever!

Simply set the time and temperature and the slow cooker will do the rest.

Intellligent Controls

Exclusive electronic control displays the current and set temperature of the cooker. No more guesswork.

Programmable Setting

Program the desired cooking hours and temperature for precise cooking every time.

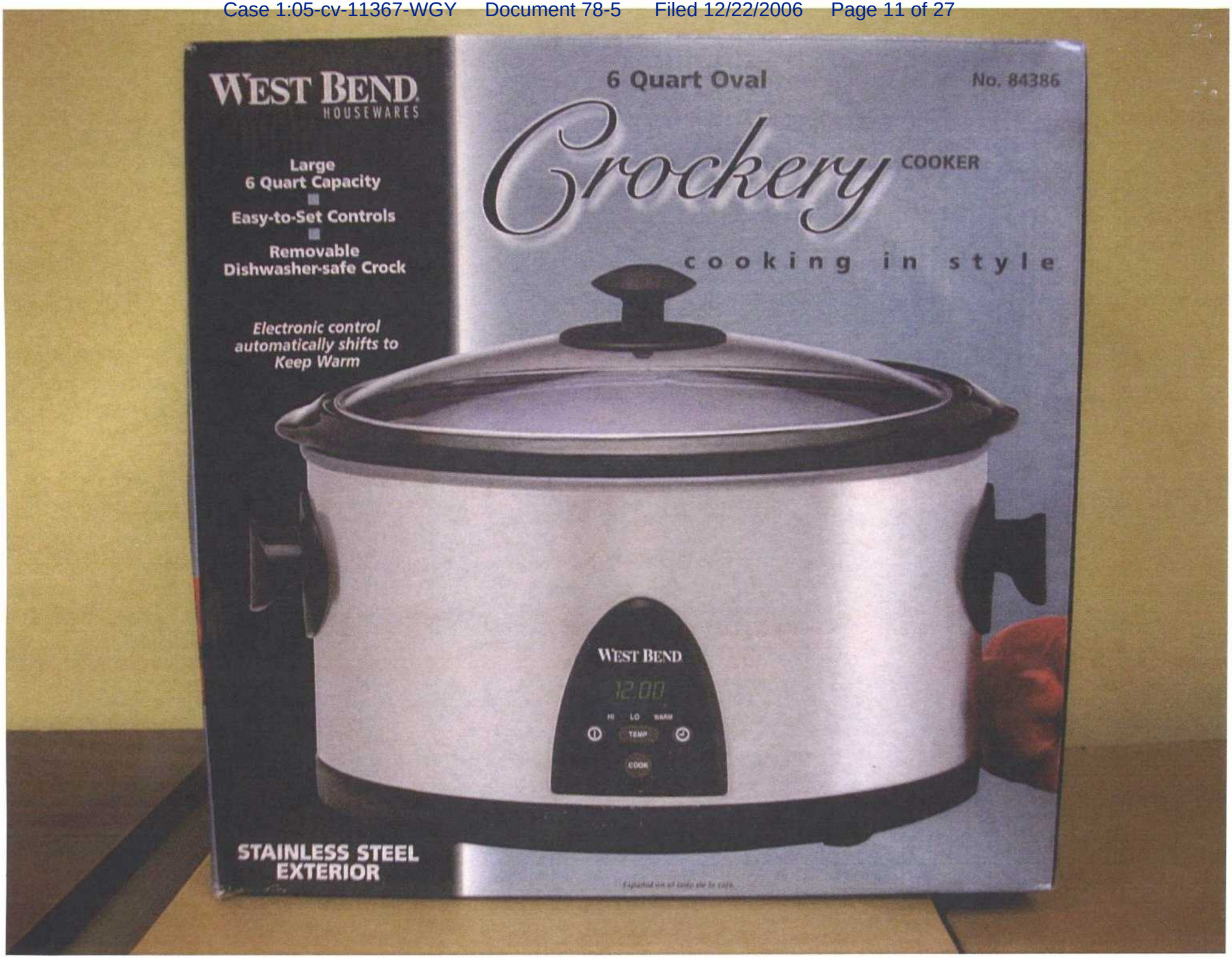
Serve & Warm

Automatically initiates the keep warm setting when cooking is complete OR choose the warm setting when using the cooker as a buffet server.

BONUS

THG00000774

Exhibit B


WEST BEND
HOUSEWARES
6 Quart Oval
No. 84386
Crockery
COOKER
cooking in style
Large
6 Quart Capacity
Easy-to-Set Controls
Removable
Dishwasher-safe Crock
Electronic control
automatically shifts to
Keep Warm
WEST BEND
12:00
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COOK
STAINLESS STEEL
EXTERIOR


WEST BEND
HOUSEWARES
6 Quart Oval
No. 84386
Crockery
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cooking in style
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Dishwasher-safe Crock
Electronic control
automatically shifts to
Keep Warm
STAINLESS STEEL
EXTERIOR
WEST BEND

Exhibit C

37 WINTER VEGGIE & FRUIT RECIPES—DELICIOUS & QU

EATINGWELL

Periodical circulates 14 days
Great Neck LIbrary

THE MAGAZINE OF FOOD & HEALTH

FEBRUARY/MARCH 2006

21 FAST & HEALTHY DINNERS

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& Easy:
Pot Slow-Cooker Meals

GO BANANAS!

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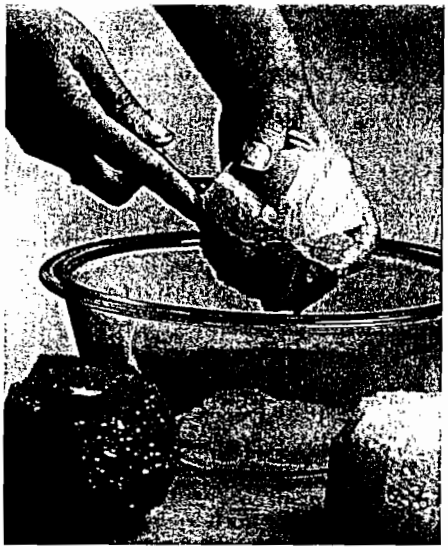
Serves Two, page 18
To debeard a mussel (*above*): Hold the mussel in one hand. Firmly pull out the black fibrous "beard" from the shell.

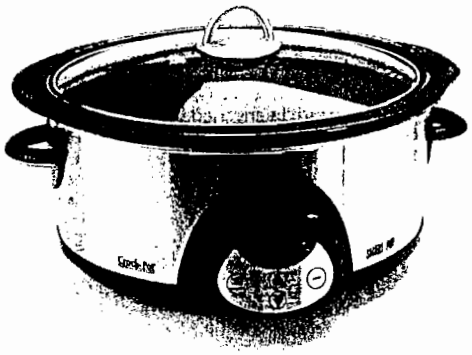
Take One... page 65
To skin a salmon fillet (*below*): Place it on a clean cutting board, skin-side down. Starting at the tail end, slip the blade of a long knife between the fish flesh and the skin, holding the skin down firmly with your other hand. Gently push the blade along at a 30° angle, separating the fillet from the skin without cutting through either.

Healthy in a Hurry, page 14
To segment citrus (*below*): With a sharp knife, remove the skin and white pith from the fruit. Working over a bowl, cut the segments from their surrounding membranes. Squeeze juice into the bowl before discarding the membranes.



TOOLS WE USE

Programmable Slow Cooker



WHEN YOU SPEND every day cooking at work it's a relief to get home to a fully cooked, ready-to-serve meal once in a while. For many of us, the slow cooker has long been a secret weapon in the effort to have a relaxing evening. And while most slow cookers have basically the same cooking mechanism—a ceramic liner that sits in a heating unit—we discovered during testing ("*Slow & Easy*," *page 58*) that certain optional bells and whistles really are worth the extra money.

A perfectly adequate five- or six-quart slow cooker, which is big enough to cook meals for a family of four with leftovers, can be purchased for as little as $30. The primary drawback with the basic cooker is that you need to manually time your cooking and then be there to turn it off. We found that the programmable six-quart Smart-Pot Slow Cooker from Crock Pot (*above*, $70) offers several features that justify the extra cost. A digital touchpad allows the user to control the heat settings and time the cooking in increments of 30 minutes up to 20 hours (it's not unheard of, for instance, for a brisket to cook for more than 12 hours). But perhaps our favorite feature is the automatic shift-to-warm setting, which allows your meal to cook for its predetermined time and then switch to a setting that keeps the food at a safe temperature until you're ready to eat. Put out the plates, pour a glass of wine and you're ready for dinner. Now if they only had one that cleaned itself... —*J.R.*

TIPS, NOTES & SOURCES

KITCHEN TIPS & NOTES

Page 10: SHAO HSING (OR SHAOXING): A seasoned rice wine available in most Asian specialty markets and some larger supermarkets' Asian sections.

Page 14: Often a blend of cinnamon, cloves, fennel seed, star anise and Szechuan peppercorns, **FIVE-SPICE POWDER** was originally considered a cure-all miracle blend encompassing the five elements (sour, bitter, sweet, pungent, salty). Look for it in the supermarket spice section.

Page 42: HARISSA: A Tunisian chile paste. Harissa in a tube will be much hotter than that in a jar. You can substitute Chinese or Thai chili-garlic sauce for it.

Page 52: CHIPOTLE PEPPERS: Dried, smoked jalapeño peppers often used to add heat and a smoky flavor to foods. Ground chipotle can be found in the specialty-spice section of most supermarkets.

continued on page 78

NGWELL,™ The Magazine of Food & Health (ISSN: 1046-1639) is published bimonthly in Jan., Mar., May, July, Sep. and Nov. by Eating Well, Inc., . Ferry Road, Charlotte, VT 05445, (802) 425-5700. January 2006 printed by Quad/Graphics, Saratoga Springs, NY. Periodicals postage paid at otte, VT, and at additional entry offices. Subscription rates: U.S. $24.95 for 1 year, $34.95 for 2 years. Canada $29.95 for 1 year, $44.95 for 2 years ble in U.S. funds). Outside U.S. and Canada, $34.95 for 1 year, $54.95 for 2 years (payable in U.S. funds).

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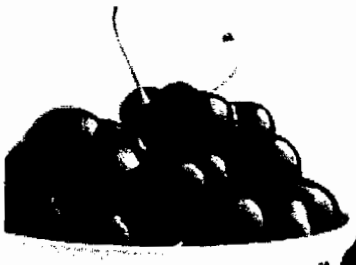
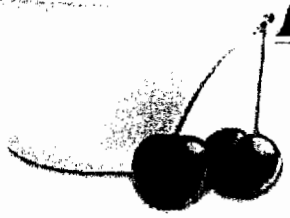
Exhibit D

THE EATINGWELL SERVES TWO COOKBOOK
150 HEALTHY IN A HURRY SUPPERS... FOR TWO
Easy Planning - Smart Shopping - Step-By-Step Cooking For Two
PREVIEW OUR NEW COOKBOOK



EATINGWELL™
WHERE GOOD TASTE MEETS GOOD HEALTH



EAT & DRINK

Programmable Slow Cookers

- Kitchen Tips & Techniques
- Fresh & In Season
- Ingredients
- Drink
- What's Hot

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ALSO OF INTEREST

EATINGWELL MARKET
Products for Healthy Living
WIN MONTHLY GIVEAWAY!

Our Test Kitchen loves the innovations of the new generation of slow cookers

Slow Cookers are not new, to be sure, but some of today's models boast features that makes them even more convenient for busy cooks than ever.

Our pick: A programmable 6 quart Smart-Pot Slow Cooker from Crock Pot ($70).

Several bells and whistles make this one a winner: a digital touchpad that allows the user a to control the heat settings and time cooking in increments of 30 minutes up to 20 hours, and the automatic shift to warm setting which allows your meal to cook for its pre-determined time and then switch to a temperature that will keep the food at a safe temperature until you're ready to eat.

Check out **Irish Lamb Stew** for a delicious way to put your slow cooker to good use.

« Back

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website by propeller

Exhibit E

WOMANS DAY
FEBRUARY 01,2006

How to Save Your Life

Woman's Day®

Free Chicken Recipe Cards

Slow-Cooker Suppers

Walk Off Your Belly

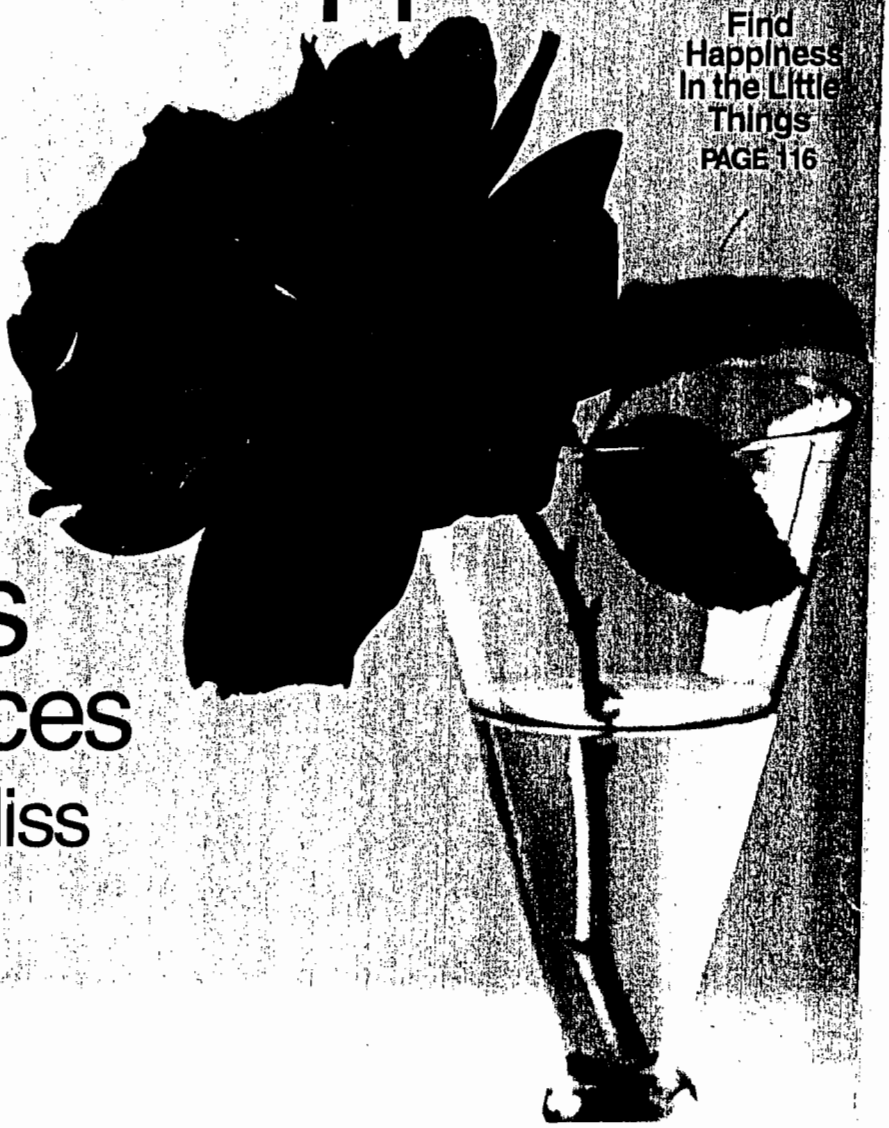
40 Chores
In 5 Minutes or Less

33 Big Ideas For Small Spaces

Diseases Doctors Miss

18 Clever Ways To Reuse Almost Anything

Find Happiness In the Little Things
PAGE 116



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womansday.com
100s of Recipes

FEBRUARY 1 2006 U.S. $2.49 CANADA $3.49

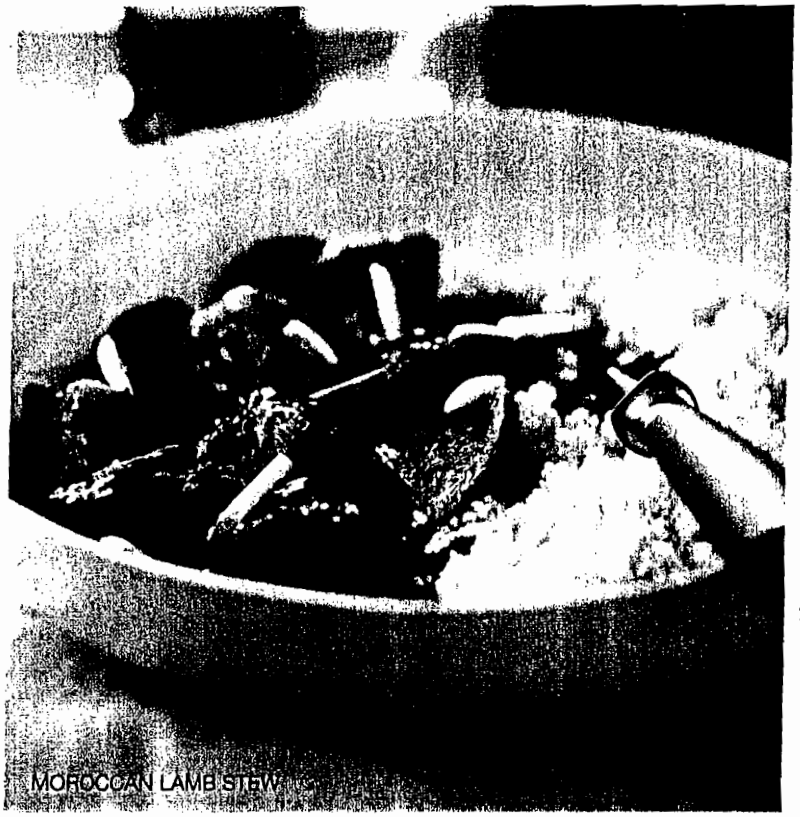
moroccan lamb stew

Serves 6 Active: 15 min/**Total:** 7 to 9 hr on low

3 cups chopped onions
2¼-lb lamb shoulder, cut in 1½-in. chunks
2 sweet potatoes, peeled and cut in 1½-in. chunks
2 cinnamon sticks (each about 3 in. long)
1 cup each dried apricots and pitted prunes
1 Tbsp each minced garlic and fresh ginger
½ tsp salt
¼ tsp ground red pepper (cayenne)
1 can (14 oz) chicken broth
1 box (10 oz) couscous
⅓ cup slivered almonds, toasted

1. Layer onions, lamb, sweet potatoes, cinnamon sticks, apricots and prunes in a 4½-qt or larger slow-cooker. Top with garlic, ginger, salt and pepper; add broth.
2. Cover and cook on *low* 7 to 9 hours until lamb and potatoes are tender.
3. Remove solids with a slotted spoon to a serving bowl. Pour liquid into a bowl, skim off fat and add juices to stew.
4. Prepare couscous as package directs. Serve with the stew, and sprinkle stew with the almonds.

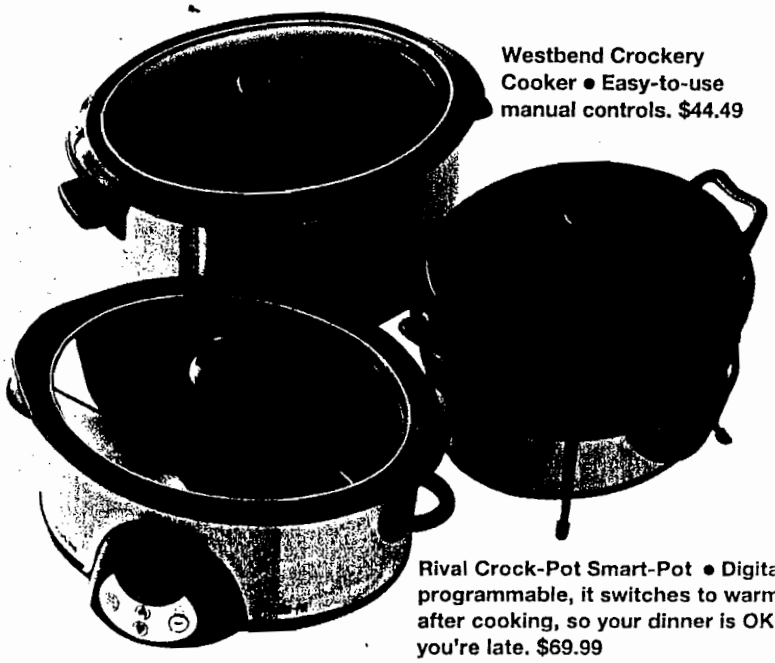
Per serving: 742 cal, 46 g pro, 104 g car, 10 g fiber, 16 g fat (5 g sat fat), 112 mg chol, 471 mg sod



MOROCCAN LAMB STEW

the envelope, please

We tested six new 6-qt slow-cookers with our Chunky Beef Chili (see recipe at right). Set on low, some cooked much faster than others, more on a low boil than the preferred simmer. For slow, even cooking and ease of operation, our top three picks are:



Westbend Crockery Cooker • Easy-to-use manual controls. $44.49

Rival Crock-Pot Versaware • The stoneware crock can be used on the stovetop and in conventional and microwave ovens. $59.99

Rival Crock-Pot Smart-Pot • Digitally programmable, it switches to warm setting after cooking, so your dinner is OK even if you're late. $69.99

chunky beef chili

Serves 8 Active: 10 min/**Total:** 7 to 9 hr on low

2 lb lean beef chuck, cut for stew
1 can (28 oz) chunky-style tomatoes in purée, undrained
1½ cups chopped onions
12 oz beer or 1½ cups water
1 can (4.5 oz) chopped green chiles
¼ cup tomato paste
3 Tbsp chili powder
1½ Tbsp minced garlic
2 tsp ground cumin
1½ tsp salt
¼ tsp ground cinnamon
¼ cup smooth peanut butter
3 cans (15 to 16 oz each) Roman or pinto beans, rinsed
⅓ cup chopped cilantro
Serve with: sour cream, chopped red onion, shredded Cheddar cheese

1. Mix all ingredients except peanut butter, beans and cilantro in a 4-qt or larger slow-cooker.
2. Cover and cook on *low* 7 to 9 hours until beef is tender. Stir in peanut butter until blended, then stir in beans.
3. Cover and cook 5 minutes, or until beans are hot. Stir in cilantro.

Per serving: 377 cal, 32 g pro, 32 g car, 8 g fiber, 14 g fat (4 g sat fat), 74 mg chol, 1,145 mg sod

Please turn to page 92

Ham Lingo
THG0000081

Exhibit F

13 of 1000 DOCUMENTS

Akron Beacon Journal (Ohio)

February 8, 2006 Wednesday

Slow cooker to the rescue;
Black beans, kielbasa combine for dish that's hearty and easy to make

BYLINE: Beverly Mills and Alicia Ross, United Feature Syndicate

SECTION: E; Pg. 3

LENGTH: 718 words

If you don't like your **slow cooker,** there's a good chance it's the same one Aunt Mildred gave you as a wedding gift way back when. **Slow cookers** have come a long way in the past couple of years, and we highly recommend you give them another chance.

The improvements in the new generation of **slow cookers** are impressive:

The most sophisticated **programmable** pots (about $70) can be set to cook in both hour and half-hour increments, plus they switch to a warm mode when the cooking time is up. Some pots even contain a recipe database.

Other, less expensive models (about $40 to $50) can be programmed to cook for four, six, eight or 10 hours before automatically switching to the warming mode.

Most of today's **cooker** inserts are an oval shape, allowing more surface space for even cooking.

Slow cooker stoneware inserts are larger than they used to be -- most crocks have a capacity of 6 quarts. This extra space makes the **cooker** more versatile, cooking enough to feed a family of six and allowing you to cook a 5-pound roast or brisket.

Almost all of the new pots contain a removable stoneware insert that's dishwasher-safe.

Reynolds now makes a **slow cooker** liner bag (similar to a turkey baking bag) for even faster cleanup. Just serve the food, lift out the bag and throw it away. Talk about fast! A box of four liners retails for $2.49.

Some pots (about $50 to $60) have inserts that can stand extreme temperatures so you can brown meat right in the crock on your stovetop or even put the insert into a conventional oven.

We'll revisit **slow cookers** next week to talk about how they can transform a busy family's dinner dilemma. In the meantime, we especially recommend recipes like today's **Slow**-Cooked Black Beans and Kielbasa that require very little preparation -- just put in the food, go away, and come home hours later to a house that smells like you've hired a professional chef.

SLOW-COOKED BLACK

BEANS AND KIELBASA

2 cans (15 oz. each) black beans

1 can (14 ½ oz.) stewed tomatoes

1 cup frozen yellow corn kernels

2 tsp. bottled minced garlic

1 tsp. chili powder

½ tsp. ground cumin

1 lb. reduced-fat turkey kielbasa sausage

Cooked rice, for serving, optional

Shredded Cheddar cheese, or other Mexican-blend cheese, optional garnish

Rinse and drain one can of the black beans, and pour the beans into the **slow cooker.** Add the second can of black beans with their juices to the **cooker.** Add the tomatoes with their juices and the frozen corn.

Sprinkle the garlic, chili powder and cumin over the mixture and stir gently, so as not to break up the beans.

Cut the sausage link into 6 pieces, and prick each piece with a fork. Place the sausage pieces over the bean mixture, but do not stir. Place the lid on the **slow cooker,** turn the **cooker** to low and cook for at least 6 hours or up to 10 hours. (The bean-sausage mixture also can be cooked on high for 3 hours or up to 4 hours.)

Before serving, if rice is desired, cook it according to the package directions. To serve, ladle the bean mixture over a bed of rice (if desired) or ladle the beans into soup bowls (if not using rice). Top each serving with a piece of sausage. Sprinkle shredded cheese over each serving to taste, if desired. Serve at once. (Leftovers will keep in an airtight container in the refrigerator for up to three days.)

Serves 6.

Alternative stovetop directions: Follow the directions above, but instead of adding the ingredients to a **slow cooker,** place them over medium heat in an extra-deep, 12-inch nonstick skillet that has a lid. Bring the mixture to a **slow** boil, reduce the heat to low, then cover the skillet. Simmer, stirring gently from time to time, until the sausage has heated through and the flavors develop, about 45 minutes. Remove the skillet from the heat and serve as directed above.

Each serving has about 296 calories (33 percent from fat), 12 grams fat (4 grams saturated), 47 milligrams cholesterol, 21 grams protein, 33 grams carbohydrates, 10 grams dietary fiber and 1,252 milligrams sodium.

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Beverly Mills is a former food editor for the Miami Herald. Alicia Ross is a former food columnist for the Raleigh News and Observer.

LOAD-DATE: February 9, 2006

LANGUAGE: ENGLISH

PUBLICATION-TYPE: Newspaper

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Exhibit G

1 of 1000 DOCUMENTS

The Miami Herald

February 23, 2006 Thursday

Slow cookers can help hurry up dinner

BYLINE: GAIL BORELLI, Knight Ridder News Service

SECTION: E; Pg. 19

LENGTH: 664 words

If your **slow cooker** has been gathering dust in a dark cupboard, it's time to drag it out and get reacquainted. In 2006, **slow** cooking is hip and happening. Need proof? Turn on the television, where celebrity chefs such as Emeril Lagasse and Alton Brown share **slow-cooker** recipes. Stroll through the supermarket, where you'll find new products made specifically for **slow cookers.** Visit the bookstore, where the new releases include a slew of **slow-cooker** titles. And check out the newest generation of **slow cookers,** which have been updated to maximize their convenience and good looks.

"The appeal to **slow cookers** is the same as it's always been: Set it and forget it," says Victoria Matranga, design programs coordinator for the International Housewares Association in Rosemont, Ill. But the hands-off cooking style has gained even more fans as family time becomes ever more fractured.

When Rival introduced the electric Crock-Pot in 1971, it turned the appliance into a kitchen staple by marketing it as a helpmate for the new legions of working women. The Crock-Pot allowed busy families to come home to the enticing aroma of a simmering meal made from fresh ingredients.

For years **slow cookers** were the steady Eddie of kitchen appliances. In the 70s, although nearly 80 percent of households had **slow cookers** and they were the No. 2 item on bridal registries, interest in them kind of died, says Julie Kay, who writes a weekly column on **slow** cooking for The Advocate newspaper in Baton Rouge, La.

Slow cookers were perceived as perfect for making pot roast, stew and chili but not much else. As the appliance spotlight turned to more glamorous food processors, stand mixers and espresso machines, many fuddy-duddy harvest-gold **slow cookers** were shoved into cabinets and forgotten.

But times have changed. At Rival, sales of **slow cookers** have jumped about 20 percent the last four years, says Diane Coffey, a communications coordinator at the Holmes Group, which owns Rival. The resurgence, she says, is all about comfort food and getting dinner on the table.

In addition, the explosion of cooking and decorating shows on television has given a new cachet to homemaking skills, Matranga says. Instead of being just another chore to check off the list, cooking now is perceived as hip and entertaining.

Part of the fun is experimenting with ingredients and recipes. In the beginning, **slow cooker** recipes were seasoned mostly with onion soup mix and condensed soups, Wyss says. But today's cooks are experimenting with a world of bolder flavors.

Most ethnic cuisines include **slow**-simmered soups and stews, such as Moroccan tagine, that are easily adapted to electric **slow cookers.** And recipes abound in books and on the Web for nontraditional **slow-cooker** fare such as chutneys, cakes, risottos, roasted vegetables, oatmeal and cereal snack mixes.

Manufacturers of **slow cookers** have responded to renewed consumer interest with smart new features. The Versaware Crock-Pot from Rival, for example, is made from patented stoneware that endures temperature extremes. Cooks can use the stoneware to brown meat on the stove, store leftovers in the freezer and then reheat them in the microwave -- true one-pot cooking. Versaware and most other stoneware inserts also are dishwasher-safe.

Several manufacturers offer **programmable slow cookers.** When cooking time is up, the pots automatically shift into "warm" mode -- the perfect solution to an eight-hour recipe and a 10-hour workday. "Auto-shift" pots cook at high for the first hour to lift the food's temperature out of the danger zone, then automatically shift to the low setting.

Slow cooking also has gotten a boost from new supermarket products aimed at streamlining prep time and cleanup. **Slow Cooker** Helper from Betty Crocker and frozen Crock-Pot Classics from Banquet eliminate the need to peel and chop vegetables. Several companies make spice blends specifically for **slow cookers,** while Reynolds sells liners that keep crocks mess-free.

LOAD-DATE: February 23, 2006

LANGUAGE: ENGLISH

PUBLICATION-TYPE: Newspaper

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EXHIBIT D

00001

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF MASSACHUSETTS

C.V. No: 05-CV-11367WGY

* * * * * * * * * * * * *

THE HOLMES GROUP, *
Plaintiff, *
*
vs. *
*
WEST BEND HOUSEWARES and FOCUS *
PRODUCTS GROUP, LLC. *
Defendants. *
*

* * * * * * * * * * * * *

30(b)6 DEPOSITION OF THE HOLMES GROUP, a witness called on behalf of the Defendants, pursuant to the Massachusetts Rules of Civil Procedure, before Janet Chase, a Certified Shorthand Reporter and Notary Public in and for the Commonwealth of Massachusetts, at the Radisson Hotel, 11 Beaver Street, Milford, Massachusetts, on Thursday, November 16, 2006, commencing at 9:05 a.m.

00002

APPEARANCES:

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00003

I N D E X

00004

E X H I B I T S

No.	Description
2	Defendants' Amended First Rule 30(b)6 Deposition Notice
5	Document Bate Stamped MKM001 through MKM0017
7	Crock Pot Owner's Guide
10	Document Bate Stamped THG000008688 through THG000008669
10A	Crock Pot Information Sheet
11	Document Bate Stamped THG000001682 through THG000001684
12	Document Bate Stamped THG000008692
14	Holmes Group Price List of Products
15	Document Bate Stamped THG000008244
16	Document Bate Stamped THG000008677 through THG000008680
17B	Document Bate Stamped THG000007905
19	Declaration Under 37 C.F.R. 1.132 of Bart J. Plaumann
20	Document Bate Stamped THG000004405 through THG000004406
21	Document Bate Stamped THG000008788 through 87890
22	Document Bate Stamped THG000008692
23	Document Bate Stamped THG000008382 through THG000008388
24	Rival Crock Pot

00005

P R O C E E D I N G S

THE VIDEOGRAPHER: This is the video operator speaking, Bill Slater of Esquire Deposition Services. Today's date is November 16, 2006. The time is 9:05 a.m.

We're here at the Radisson Hotel located at 11 Beaver Street, Milford, Massachusetts to take the videotaped deposition of Bart Plaumann in the matter of the Holmes Group, Incorporated, versus West Bend Housewares, et al, in the United States District Court for the District of Massachusetts, civil action No. 05-CV-11367WGY.

Will counsel please voice identify yourselves and say who you represent.

MR. SACK: Alan Sack. I represent the plaintiffs, the Holmes Group.

MR. HUSMANN: Mike Husmann and Ed Sarskas for the Defendants.

THE VIDEOGRAPHER: Will the court reporter please swear in the witness.

BART JONATHAN PLAUMANN, a witness

00023

that was closed down and everything was set up here in Milford, there were a lot of files that were either deposed of or, you know, not transferred. So I can't tell you any -- if we have anything on this.

Q. Okay.

A. But anything we looked for, you would have had.

Q. Okay. And you did look through the archives, I believe you said?

A. Uh-huh, yes.

Q. Okay.

(Discussion off the record)

Q. Does Holmes contend that there are any secondary considerations of non-obviousness supporting the validity of the patents in suit in this case?

MR. SACK: Objection. The question calls for a legal conclusion. The witness is a layperson.

MR. HUSMANN: We asked for that topic area, and you --

MR. SACK: I understand.

MR. HUSMANN: -- responded to --

00024

that he would testify to that.

MR. SACK: I think he could. I think you need to ask him the question in lay terms as opposed to giving him the legal test. I don't know if he --

Q. Well, do you know what secondary considerations of non-obviousness are?

A. I think Alan makes a good point. So if you would explain how you mean.

Q. All right. Let's -- if you would look at Exhibit 2. I believe that Holmes's response to our 30(b)6 designation.

A. Okay.

Q. And if you would turn to topic 25, please.

A. Okay.

Q. What did you do in order to prepare yourself to testify as to topic 25 in this 30(b)6 deposition?

A. I'm going to read this. Okay. Can you repeat your question?

Q. What did you do in order to prepare yourself to testify as to topic 25?

A. I looked at the patents. But in general it's just from my knowledge of the business.

00025

Q. Okay. And did you come to any conclusion whether or not Holmes had any secondary consideration of the non-obviousness?

MR. SACK: The objection is on the record. You can answer the question to the extent you understand it.

A. Yeah, and I'm -- I don't quite understand what the secondary consideration aspect means. Now, I've had a conversation before on this subject, but I'm not -- I don't quite understand what that means.

Q. So sitting here today, you cannot tell me whether or not Holmes has any contentions that there are or are not any secondary considerations of non-obviousness; is that correct?

A. Well, the way I understand non-obviousness -- and I'm not sure if that's what the secondary consideration part of it means -- is that the patent that we have today on the product that was developed, nothing like that existed before. And so it was -- you know, it was novel, it was new. It was non-obvious in that those didn't exist in

00026

slow cooking. So I'm not sure if that answers the question, but --

Q. All right. And you say the product we developed, are you talking about the product that's the 3850?

A. Correct. And that base. That was the first product. Then we did the 3860, and we -- several other skus

Q. Okay. What's the difference between the 50 and the 60?

A. The 50 was a five quart and the 60 was a six quart.

Q. Okay. If it's a -- do you talk about 3800 series of products or something like that?

A. Not really.

Q. Okay.

A. We will usually identify it specifically --

Q. To the product?

A. -- to the skus.

Q. I talked over you. I'm sorry.

A. It's okay.

Q. What's your understanding of what was new and novel about the 3850?

A. That there were no programmable slow cookers

00027

before on the market, and so it was unique.

Q. What do you mean by programmable?

A. Previous to the introduction of the 3850 and the 3860 all slow cookers had -- had to be manually adjusted to set them on high or low or a keep warm setting, and the programmable unit automatically shifted after a certain period of time to the keep warm setting.

Q. The 3850 you have to put it on high, don't you?

A. You put it high or low.

Q. Right.

A. And after a period of time it automatically shifts to the keep warm setting.

Q. If a cooker does not have an automatic keep warm function, would you consider it to be a programmable cooker?

A. If it does not have it?

Q. Yes.

A. No.

Q. And you believe that the 3850 was the first cooker with an automatic warm feature; is that correct?

A. I believe it was the first slow cooker --

00028

Q. Okay.
A. -- that had that feature that would automatically shift without having to manually do anything.
Q. And what research did you do to come to that conclusion?
MR. SACK: Objection, lack of foundation.
MR. HUSMANN: I'm trying to get the foundation for his testimony. I don't understand your objection.
MR. SACK: Well, your question assumes research.
MR. HUSMANN: Well, if he didn't do any research to do it, that's fine. Then that's the question.
A. I joined the company after they had already decided to introduce this product.
Q. Okay.
A. So I don't know how much was done, you know, in terms of researching.
Q. Okay.
A. And those people are no longer with the company. But I know from being in the

00029

company for six years there was nothing else on the market previous to our introduction of it.

Q. So the basis for your opinion, as I understand it then, would be your knowledge of what was in the market during the period of time after you joined the Holmes Group?

A. Correct, from the point I joined forward.

Q. Okay.

THE WITNESS: Alan, can you get me some more water, please.

MR. SACK: Sure.

Q. Other than the feature of automatic -- the automatic warm function, did you consider --

(Discussion off the record)

Q. Other than the automatic warm feature, would you consider the 3850 to have any other novel features?

A. Well, at the time it was introduced, it was the only unit that had the electronic displays in slow cookers. Previous to that all the units had knobs, and there would be words that would be on the wrapper that said off, high, low, keep warm. And this one had

00030

-- it was electronic. You know, as you pushed the buttons, it would go from high to low, which was different.

Q. It would light up LEDs --

A. Correct.

Q. -- as you went from high to low, correct?

A. That's correct.

Q. And by it, I mean the 3850.

A. That is correct.

Q. And are you saying you didn't think any other slow cookers prior to the 3850 used LEDs to identify the temperature settings?

A. I don't know if -- I'd never seen before then LEDs's being used. But what I mean by being different is there was this electronic aspect to it where you pushed these buttons and it changed versus a knob.

Q. The difference was pushing the knob as opposed to turning the switch, is that what you're saying?

A. No, the difference was it's electronic, so it was a touch pad. And as you would touch it, it would move from -- from high to low to off to keep warm. And before you would

00031

have a knob. So it's -- it was a different way to accomplish that function.

Q. What do you mean by a touch pad?

A. You're familiar with the unit, the 3850?

Q. Yes.

A. There's a -- on the housing you've got a touch pad to the control panel. And you can press the touch pad, and it will light up for high or for low and for the amount of hours that you would to run it.

Q. Would you look at Exhibit 7, I believe.

A. I'm there. What do you want me to look at?

Q. Do you know what that manual is for? Is that for a 3850?

A. It would be for that, and it would be for it appears any of the other programmables we had at the time.

Q. Okay. On page 4 of that manual does that show the touch pad you're talking about?

A. Yes. This control panel --

Q. Okay.

A. -- when you press it, you know, it moves the hours and the high and the low.

Q. When you push cook, an LED lights up under

00032

the circle that says four, correct?

A. Correct.

Q. And you push it again, and it goes to six?

A. Correct.

Q. Okay. And what was different about that than the prior -- than what was previously known in your opinion?

A. Previously there was no -- you couldn't set hours at all, so that was new. But also it was a knob on all of our other units. So you would turn it to high or low.

Q. Okay. And you didn't think any other slow cookers were out where you could push a button and you would go from high to low --

A. There aren't any --

Q. -- as opposed to turning a switch?

A. Excuse me. See I did it that time.

Q. Okay.

A. There aren't any that I'm aware of.

Q. Okay.

A. Or there weren't any that I'm aware of.

Q. Okay. Any other -- are you aware of any other features that you have not discussed regarding the 3850 that you believe were

00033

novel?

A. Well, I'm aware that we also have a patent regarding the heat dissipation.

Q. And --

A. The chimney effect patent.

Q. Are those the patents that are in suit here?

A. I'm not certain if that's part of this suit. I don't think it is. I think -- I think it's just the one regarding the keep warm setting and the automatic shifting.

Q. Okay. So you think that the use of a chimney effect for cooling in a slow cooker that the 3850 was the first product to do so?

A. I believe so, because it's linked to having a PCP board. You know, having an electronic assembly to it.

Q. What do you mean by a PCB board?

A. The computer board that's inside the unit.

Q. And that creates heat?

Q. Okay.

A. And our engineers came up with the design that allows it to -- with the venting to dissipate the heat.

00034

Q. And you believe that was novel with the 3850 as far as you know?

A. As far as I know, yes.

Q. Mr. Plaumann, I want show you an exhibit we marked as Exhibit 19 and ask if you could identify that, please.

A. It's a declaration of myself.

Q. Okay. Your signature appears on the last page of that document, correct?

A. That's correct.

Q. Okay. If you would turn to paragraph 5 of that document. I'm referring to the second sentence. It says, Since amount of cooking time is relatively long, and the food is cooked at a relatively low temperature, there was not seen a need for including a timer on a slow cooker. Do you see that?

A. Yes, I do.

Q. What was the basis for that statement?

A. That the units are at a low temperature. Slow cookers also are different than other cook devices in that they run at a slow temperature for a long period of time, sort of the name slow cooking. And, because of

00035

that, there's not a specific -- if you cook for six hours versus seven hours, it's not necessarily as critical to the product as it is in skillet.

For example, if you cook 30 minutes versus an hour, you know, you'd burn up your food. So that's what that means.

Q. Okay. But you say that -- as I understand this, you're saying that no one recognized a need for including a timer, correct?

A. That's correct, that it wasn't a necessity.

Q. Okay. And what research did you do in order to determine that no one else recognized this need?

A. I can't say that no one else recognized the need. You know, competitors, etc. But when we did some consumer research that said it wasn't as important as some other things.

Q. What research are you talking about?

A. Consumer research. The company went out, and -- they did this a little before I joined the company, so I can't tell you the company they hired.

Q. Okay.

00036

A. But we hired a research firm that went out and qualified consumers and had focus groups and asked a -- you know, variety of questions and things that came out of that are the ones that said what we thought would be the most important things if we were going to make changes to slow cooking.

Q. And how do you know about this research if you weren't there?

A. They videotaped it. And I saw some of it shortly after I joined the company.

Q. Have you referred to it recently in preparation for this declaration at all?

A. No, only from my knowledge of it.

Q. Okay. Did you look to see whether or not any documents regarding that research are still at Holmes?

A. Yes.

Q. Is there?

A. Anything we would have, we would have given to you. So I personally don't know if we came across that information.

Q. Who -- if that information -- where would that information be kept?

00037

A. That -- it would have been kept in files.
Q. Whose files?
A. Our marketing people in the marketing department for slow cooking.
Q. And those files were searched?
A. Yes.
Q. Any other basis for your statement that there was not seen a need for a timer on slow cooker?
A. No, that would be it.
Q. It was based on this research as you recall it --
A. Correct.
Q. -- that consumers were requesting or thought that would be a good idea?
A. Again, this is going back quite a ways.
Q. Yes.
A. But my recollection of this is that that's a good thing, but it wasn't as important as being able to have it automatically shift to keep warm.
Q. And this information was developed during these focus group meetings?
A. Yes.

00038

Q. Okay. And this was developed prior to designing the 3580, correct?

A. The 3850.

Q. 3850, I'm sorry.

A. That's okay. I do that a lot. Because it was -- I joined the company after a lot of that was done. So I can only go off of what I believe to be the case is there were some ideas the company had on making changes to slow cooking, and this consumer research helped validate it and also helped direct the company in what they were developing.

Q. Did you talk to any of the people at Holmes that were involved in these market studies in preparation for this deposition?

A. None of those people are at Holmes anymore.

Q. Who directed the studies for Holmes then?

A. That would probably have been directed by a gentleman named Greg White.

Q. And do you know where this gentleman is now?

A. He works for a company called i Robot.

Q. And where is i Robot located?

A. It's in Massachusetts.

Q. Can you narrow it down any further?

00039

A. Oh, yeah, it's in Burlington, I believe.
Q. Burlington, Massachusetts?
A. Yes.
Q. And it's called i Robot?
A. Uh-huh.
Q. Is that like the apple with a small I? They do --
A. Yes.
Q. Okay.
A. Yeah, and capital R.
Q. Okay.
A. They manufacture those robotic vacuums.
Q. Oh, okay. The ones that run around your house in circular --
A. Yup.
Q. When is the last time you've talked to any of the inventors on the patent at issue?
A. Yesterday, I spoke to Chuck Thrasher.
Q. Okay. Did you ever talk to Mr. Hlava, recently talk to Mr. Hlava?
A. I don't know who that is.
Q. Okay.
A. Other than knowing his name is on the --
Q. How about Mr. DeCobert? DeCobert I believe

00040

is how you say it. Have you talked to him recently?

A. No, I haven't.

Q. Okay. Have you ever talked to him?

A. Yes.

Q. And when was the last time?

A. Sometime before he left the company.

Q. Approximately when did he leave?

A. I am not certain what the date is of that. It's been quite a while.

Q. Did you believe there was a need in the marketplace for a programmable controller at the time back in let's say in 2000?

A. Well, when I joined the company they already developed this idea. It hadn't gone to market yet.

Q. Right.

A. And I certainly thought the idea was a good one. I would have wished I had thought of it, because it's been very successful. But it did not exist before I joined the company at retail.

Q. Okay.

A. So when it was brought to my attention, you

00041

know, upon joining the company, I thought that -- I just thought it made a lot of sense.

Q. And just so I'm clear, when you say it was not available, are you talking about a slow cooker that had an automatic warm feature on it?

A. The terms that we used was manual and programmable. And there was no programmable unit out on the market when I joined the company. It -- the unit we had, the 3850 and the 3860, they were have in development.

Q. Okay.

A. But they had not been yet sold into retail.

Q. When you say manual as opposed to programmable, would you describe again what that means?

A. Yes, it means that you have to make any changes to the unit by physically going up to unit and turning it.

Q. Were you aware of any products that Holmes sold that did have some automatic settings?

A. Yes.

Q. What were they?

00042

A. They were not in the kitchen business. They were in the home environment business.

Q. What products were those?

A. Heaters.

Q. Heaters. You mean like space heaters?

A. Yup.

Q. Okay.

(Discussion off the record)

A. Yeah, like space heaters.

Q. Okay. And I would -- okay.

(Discussion off the record)

A. I would assume only because I wasn't -- I'm not as familiar with the home environment side as I am with the kitchen, but I would assume we had programmable also in the humidifiers that we had and the air purification. The home environment business was known for having electronic products.

Q. To your knowledge did Holmes when you joined them have any cooking appliances that had some automatic features?

A. Not to my knowledge.

Q. Do they currently sell any products in the cooking side of the business that have some

00043

automatic features other than these programmable slow cookers?

A. Yes.

Q. What are they?

A. The roaster oven.

Q. Okay.

A. I'm going to think through our categories.

Q. Sure.

A. We've had fryers.

Q. Okay.

A. And we have some skillets and griddles that have some digital and electric technology that allows them to be set to temperature and -- and they scroll up and scroll down, and they beep and do some things.

Q. Does Holmes sell a rice cooker that has automatic features to it?

A. Not that I'm familiar with.

Q. Did they at any time, do you know?

A. No, not that I'm familiar with.

Q. You don't know of any rice cookers that Holmes sold?

A. Not that have programmable features to it.

Q. What was automatic about the roaster oven or

00044

is automatic about the roaster oven?

A. We took some of the same technology that we had from the slow cooker and applied it to the roaster oven. So it can be set time and temperature, and it has a count down feature so you can see it.

Q. Okay. And what's automatic about the fryers?

A. Well, I have to admit I'm not as up to speed today as I used to be on some of them. So I'm not sure if we have a fryer today like one that we introduced about three or four years ago where -- the same thing you could press a touch pad and take it up in increments up to a temperature. And then when it starts, it would then count down and autobolize (sic) when you -- when it hits that -- when it hits the proper temperature and when the time is done.

Q. And was that technology also the technology that was developed for the slow cooker?

A. I can't say that it really was. You know, I don't know if those two were linked. Because we've had -- you know we started

00045

with the slow cooker with programmable. And as successful as it was, obviously we are going to say what can we apply this type of thing to. But I can't tell you that we automatically linked that to that fryer that I just mentioned.

Q. What features of the programmable controller did you attribute the success of the product in the marketplace?

A. Well, overwhelmingly the automatic shift to keep warm was what's successful about that.

Q. Okay.

A. The consumer loves that feature, and it presents -- I don't know if you have a slow cooker at home, but -- especially if you have kids and the schedules aren't as you would like them to be. After it reaches the length of time that's been set like the four or six or eight hours, it automatically shifts to keep warm so it doesn't overcook the food. And that's been, you know, an astounding success for us.

Q. And what's the basis for your conclusion that that feature is the overwhelming

00046

feature that led to the success of the programmable cooker?

A. The consumer research referred to earlier that said they liked that idea.

Q. Okay.

A. And subsequently, you know, we have done other research with consumers about the product who reflect on that as being such a key feature.

Q. Okay. The research that you talked about -- you said earlier research that was done correct, and then you did subsequent research also?

A. Correct.

Q. Okay. I want to focus on the earlier one. This is the research that we didn't get any documents on. So I assume you don't have that research.

A. If you didn't get any, we must not have it.

Q. Right. So you haven't looked at it, correct?

A. Not for a long, long time.

Q. Okay. And that was done before the product was put on the market, correct?

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A. Correct.
Q. Okay. Now, what research was done after the product was put on the market?
A. We have done a lot of consumer research on slow cookers --
Q. All right.
A. -- just for, you know, new ideas and new concepts.
Q. Okay.
A. And in some cases we have, you know, reviewed our current product with the consumer, and they talk about that being an excellent feature that we have out there.
Q. Okay. And does Holmes keep those research -- documents relating to those researches in its files?
A. We should have that information.
Q. Okay. If you have that information, would it have been produced to us?
A. It should have been.
Q. And if we don't have it, you don't have, it, correct.
A. That would be correct. We should have produced it to you if we had it.

00048

Q. Well, okay. You said the overwhelming feature was the -- the overwhelming feature that led to the success of Holmes' programmable controller was the keep warm feature.

A. Yes.

Q. Was there any other features that led to the success?

A. I'm now going to state my opinion, because I can't recall if we had, you know, data that said this was our favorite feature, this was our next and our next on what we have. But the consumer, as you can see in electronics and all other kinds of products, has gotten -- VCRs and now, you know, DVDs and al that stuff, have gotten very comfortable with digital and programmable things. And so I think they like the fact that we have that type of technology in a slow cooker.

And the fact that they can set with -- we have another unit besides the 3850 and 60 that form which is programmable, but also you can set the time and temperature of it. And then it scrolls down, and they like

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that.

But the key feature -- and every time we had talked to consumers was the keep warm, the automatic shift to keep arm.

And it's not that keep warm didn't exist in the past with manual, but you would have to physically at some time go over and switch it from low or high and go turn it to keep warm.

And the biggest thing we had with our 3850 and 3860 is that you don't have to do that.

Q. Okay. Well, is it true then that the overwhelming success of the product was because of the automatic keep warm feature as opposed to just the keep warm feature?

A. Yes.

Q. Okay. In your declaration which we marked as Exhibit 19, that paragraph 9, you say -- and this is the first sentence of paragraph 9, Once the programmable slow cooker established itself as a success in the market, many competitors have attempted to copy it. Do you see that?

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A. Yes.
Q. What do you mean by copy?
A. Come -- by copy I mean they've come out with slow cookers that have the same features that we have that are covered in our patents.
Q. Okay. You're not saying these people took your product and tore it apart and copied it like that, are you?
A. I don't know that they did that.
Q. Okay. What you're saying is that the same features appeared on the market?
A. That's correct.
Q. It's possible that those competitors could have independently developed their products, correct? You just don't know?
A. It's possible.
Q. Yes.
A. But we were the first on the market, and then other products came out that had the our features, so I would say it's not probable.
Q. But it is possible?
A. But it is possible.

00051

Q. Okay. Do you know who these nine companies are? There's two of them identified here, I assume, West Bend and Europro?

A. Correct.

Q. Okay. And do you know who the other seven are?

A. I'll see if I can remember them. There's All-Clad, which is an SEB company. There is or was Ultrex. A company Innova, they have sense gone out of the business. There's Hamilton Beach. There's a company called Toastess.

Q. I'm sorry?

A. Toastess.

Q. Toastess, okay.

A. The word toast and then E-S-S.

Q. Uh-huh.

A. There's a company that -- well, you'd call J.C. Penny. They buy direct with the programmable.

Q. Okay.

A. Wolfgang Puck. How many is that?

Q. I think you got them all. Nope, I've got six. Hamilton Beach, Ultrex, All-Clad,

00052

Toastess, J.C. Penny and Wolfgang.

A. I'm missing one.

Q. Okay.

A. Oh, Select Brands. They market their product under that name but mainly under Corningware which they license.

Q. Is it your understanding that the product of all of the companies you've named, the seven companies that you have named infringed the patents that we're dealing with in this lawsuit?

A. That's my understanding.

Q. Okay. And that understanding is based upon what?

A. It's based upon our legal counsel.

Q. Okay. In the complaint in this case Holmes has alleged that West Bend is willfully infringing Holmes's patents. What is the basis for the allegation of willfulness?

A. We know that they were aware that our product existed.

Q. Okay.

A. And we know that they were aware that we had patents on our products.

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Q. Okay.
A. And that they were informed of that --
Q. Okay.
A. -- by us.
Q. All right.
A. And that they still came out with the product.
Q. Any other basis?
A. I think that's it. I'd have to defer most to legal counsel on that one if there's anything more than that.
Q. Okay. What did you do to prepare yourself for -- to answer questions regarding the basis of Holmes's allegation of willfulness in this case?
A. Other than having discussion with our legal representation, with Alan?
Q. Okay.
A. I just, you know, reminded myself of what we did.
Q. Okay. And that was the fact that West Bend knew of your patents and started marketing its product.
A. Correct.

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Q. What was the basis of the Holmes suing Focus Group, Inc., in this case?

A. They own West Bend.

Q. Any other basis?

A. I can't think of --

Q. Do you know Focus Group, Inc., itself?

A. Do I know them?

Q. Yes.

A. I know of the company and that they buy other companies.

Q. Do you know whether or not they manufacture or sell any slow cookers at all?

A. The Focus Group?

Q. The Focus Group, Inc..

A. I do not. I know that they own West Bend.

Q. That's it, okay. So the basis for that allegation is simply that they own West Bend as far as you know?

A. As far as I know, yes.

Q. What research did you do in order to prepare yourself to answer questions regarding the basis for Holmes' claim of infringement against Focus Group, Inc.?

A. Just that I know that they own West Bend. I

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mean it's just my general knowledge. I know that own West Bend, and there isn't really West Bend to sue, because Focus Group bought them.

Q. Yes. So you don't think there's any West Bend to sue?

A. Well, that would be like suing Rival. Rival is not a company. You would sue Jarden now.

Q. Okay. When did Holmes first learn of West Bend's product?

A. I was made aware that they were developing a programmable slow cooker at least a year before the product came out.

Q. And can you give me some dates on that?

A. I can't here. I could go back and find that information and follow up with you.

Q. What information would you look at?

A. I'd just have to go look at -- to be accurate I'd have to go back to the houseware show that I was made aware that they were developing one. So I knew exactly which show that was and what the date was.

Q. Do you have some documents?

A. No, I'd just have to look at a calendar and

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go back and figure out when -- what year that was.

Q. Okay. So I take it you learned of it at a houseware show?

A. That's correct.

Q. How did you learn about it?

A. We were meeting with the suppliers that we also did business with that was going to make that product for them.

Q. And who was that supplier?

A. It's -- what's the word, epineminous? No, that's not wrong. OEM is the name of the company --

Q. Okay.

A. -- which is what you call suppliers, OEM?

Q. Where was this housewares show at?

A. Chicago.

Q. And who were you talking to from OEM?

A. A gentleman named Hugh McKay.

Q. Okay. And what did Mr. McKay tell you?

A. In the course of our meeting he mentioned or we became aware during our meeting that they were working on programmable slow cookers for West Bend.

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Q. And did he tell you what that product was going to be?

A. Not the details.

Q. Did he tell you who designed it?

A. I don't believe he did at that time.

Q. Did he later?

A. Yeah, later when we talked to him about the fact that we have a patent on programmable slow cookers, he said that the designs were by West Bend and that he was not held liable.

Q. When did this second conversation with Mr. McKay occur?

A. It was around the time of the letter that we gave them, because I personally delivered the letter to them on a trip to the Orient.

Q. This was a letter to them saying what?

A. To OEM that just said we want to notify you that we have patents on our programmable slow cookers.

Q. Okay. Now, at the housewares show where you first learned of this product, was that the first time Holmes had learned of West Bend's intention to come out with a new slow

00058

cooker?

A. Yes.

Q. And what did you say to Mr. McKay when he told you this?

A. Not much at that point. It was just information we took back to evaluate.

Q. Okay. And then was the next time you talked to Mr. McKay about this topic area when you delivered the letter that you talked about?

A. I don't believe it was. I believe that I had conversation, and we had conversation -- we being my sourcing team -- with them in between them.

Q. Okay. And what did you tell them? What did you and Mr. McKay discuss about the fact that West Bend was coming out with a programmable controller or programmable cooker?

A. Just in general the status.

Q. Timing, that type of a thing?

A. Is it still going forward.

Q. Yes. Right, okay. No details about what the product would be?

A. No.

00059

Q. Okay. Now, you said there was some type of a relationship between OEM and Holmes?

A. Yes.

Q. And was that -- as at that time was OEM supplying Holmes product?

A. Some of our product, yes.

Q. And what were they supplying?

A. They were supplying a griddle, a skillet and at that time I think two slow cookers manual slow cookers, no programmable.

Q. Okay.

A. And we were -- excuse me. We were developing some the slow cookers with them.

Q. With OEM?

A. Yes.

Q. Does OEM currently supply any products to Holmes?

A. I think technically they do. But we have moved out of there.

Q. And by moving out of there, you mean moving out of OEM?

A. Yes.

Q. When did Holmes do that?

A. Let's see, we're in November of '06. It's

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been going on for over a year.

Q. Okay. Why did Holmes move the products from OEM?

A. That's not uncommon to do. It depends on product quality, availability, pricing, etc.

Q. Sure. There's all kinds of reasons.

A. Yeah.

Q. But what was Holmes' reason?

A. Well, those were some of the reasons. The availability -- they were not a very good supplier for us. So we -- they weren't -- we do rankings, and they were not very high on the list. But another reason for it was that, you know, those they were manufacturing a programmable competitive slow cooker. And we told them we were not happy with that.

Q. When you delivered this letter we talked about to Mr. --

A. McKay.

Q. -- McKay, I believe, you said, you delivered it to him, did you not?

A. Yes, I did.

Q. And what was the conversation you had with

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him at that time?

A. I told him that I want to make you are aware that we had patents as this letter says.

Q. Right.

A. We also have given a letter to West Bend --

Q. Right.

A. -- to make them aware of this.

Q. Yes.

A. And we want you to know that to the extent that it infringes on our patents, we will, you know, take as aggressive legal action as we think is proper.

Q. What did Mr. McKay say?

A. He said that -- and I'm paraphrasing, because I don't remember the specific, you know, exact words. But that he's talked to West Bend, and they assure him that they're -- they assure him that they're okay and that he can make the product.

Q. Okay. Is there anything else you remember about any conversations you had with Mr. McKay concerning West Bend's introduction of a programmable slow cooker?

A. Not more than what I've told you.

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Q. Okay.
A. Would it be a good time for us to take a break?
Q. Sure.
THE VIDEOGRAPHER: The time is 10:14. We are off the record.
(Recess)
THE VIDEOGRAPHER: Back on the record. The time is 10:26.
Q. Mr. Plaumann, when did Holmes first learn of West Bend's design patents that have been asserted against Holmes in this case?
A. When West Bend filed claims against us.
Q. Okay. And what did Holmes do when it found out about those patents?
A. We read through what the claims were and determined that there was no merit.
Q. Okay. Well, how did you determine there was no merit?
A. Because we didn't know of the West Bend designs.
Q. Okay.
A. And had developed our product independent of those.

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Q. Did you get an opinion from counsel, your patent counsel, as to whether or not Holmes' product infringed the West Bend design patents?

A. By that do you mean a written opinion?

Q. Any opinion.

A. I would have to get this confirmed, but my understanding is verbally yes. But we don't have a written opinion.

Q. What was the opinion?

MR. SACK: Objection. The opinion is privileged.

MR. HUSMANN: Okay. You're going to instruct your answer not to answer?

MR. SACK: Yes.

Q. And will you follow the instruction of your counsel?

A. Yes.

Q. Has Holmes made any changes to the -- to its products in response to the allegation of infringement by West Bend?

A. No, we haven't.

Q. If you would turn to Exhibit 12, please. These are some sales figures from Holmes

00064

regarding an item 4310 and 4350, correct?

A. That's correct.

Q. And this document shows sales in the 4310 under 1999. Do you see that?

A. Yes.

Q. Do you know when the first date of sale of the 4310 was?

A. No.

Q. What did you do to find out what the first date of sale of the 4310 was?

A. We looked at the records that we have available to us, and we are not able to determine when it was introduced.

Q. When this says 1999, is that calendar year?

A. Yes.

Q. And it says ship year. Okay. Shipped from -- does that mean that it was shipped from Holmes to a customer?

A. Yes.

Q. Okay. And during 1999 there was 2007 units shipped?

A. Not very impressive, but the answer is yes.

Q. There was more than 2000, was it not?

A. 2007.

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Q. I'm sorry. It was more than -- forget that.
Is this as far back as the sales that Holmes keeps goes?
A. This is the year that Holmes acquired Rival.
Q. Okay.
A. And as I had mentioned earlier, our records previous to the acquisition are pretty weak. You know, there are some things we have, and some things we don't.
Q. Okay. Because this starts at '99 does not mean this was the first year that the 4310 was sold, correct?
A. That is correct.
Q. Okay. And is it correct that these sales figures were sales after Holmes purchased Rival?
A. That's a good assumption.
Q. Okay.
A. But I can't guarantee that. We bought Rival in February of '99.
Q. Okay.
A. So this may be, you know, from February on and not count January. Or they could have had data that has the full year.

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Q. Okay. And Holmes simply does not have any data for 1998 at least as to the 4310 and 4350 products; is that correct?

A. I don't know if that's correct.

Q. Well, how could you find out?

A. Whoever produced this document I would have to find out from them if they went back further, if they tried to capture any, you know, previous information.

Q. And how would you find out who prepared this document?

A. Well, I would probably have to talk with our legal department to see -- you know, they would have some track of who sent it to them, and then I could find out.

Q. I'm sorry if I asked you this before. I don't remember if I did. What did you do to try to figure it out when the first date of sale of the 4310 was?

A. We looked at our -- whatever data we had available. If you specifically asked us to do that, we would have looked back and looked at what data we had available to see when the product was introduced.

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Q. And did you check to see if that had been done?

A. I can't tell you right now if that -- if that had been done.

Q. Look at Exhibit 14. Could you identify what this document is?

A. Is everything in 14 the same document?

Q. I think there's three pages to that exhibit. It's how it was produced to us.

A. Okay. This would have been a price list of the products we had to offer.

Q. Okay. And it says up on the top, Effective January 1, 1995. Do you see that?

A. Yes, I do.

Q. And this is -- that would be the price list effective that date is the way you understand this document?

A. That's how I would understand it.

Q. Okay. And then in the -- when it says, Automatic Steamer/Rice Cookers, do you see that on the first page?

A. Yes.

Q. And there's one called the 4450. Do you see that?

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A. Yes.
Q. And it says, Shuts off when food is cooked.
Do you know how that was done?
A. No, I don't.
Q. And below that there's the 4310. Do you see that?
A. Yes.
Q. And it says it has a keep warm feature?
A. Yes.
Q. Do you know how that feature operated?
A. From the sell sheet that we had on this --
Q. Yes.
A. Not from a -- I can't tell you from the physical product in my mind, because the product doesn't exist anymore.
Q. Uh-huh.
A. But it has a button you press or some device you press to put it on keep warm.
Q. So it's your understanding it was not automatic keep warm?
A. From automatic meaning it would go from a higher temperature to a keep warm temperature automatically?
Q. Yes.

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A. It's my understanding it didn't do that.

But I am not familiar with these products because they don't exist, and they haven't for quite some time.

Q. Okay. Would you look at Exhibit 15, please. Could you identify what Exhibit 15 is, please?

A. Yes, it says that these are show specials.

Q. Is the Gourmet Show of 1999 correct?

A. That is correct.

Q. And when is the Gourmet show held?

A. The dates moved around a bit, but it probably would have been late spring.

Q. Okay. 1999?

A. Correct.

Q. And this type of flier is what Holmes would prepare for use at the Gourmet show; is that correct?

A. For this show --

Q. Yeah.

A. -- that's what we prepared?

Q. Yeah, okay.

A. Now, I will say I say that based on this document I'm looking at, because I wasn't

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with the company at the time. But based on what it says, clearly we must have handed that out at the show.

Q. Okay. Mr. Plaumann, I'm going to turn the deposition over to my partner, Mr. Sarskas, who is going to cover some different topic areas --

A. Okay.

Q. -- in regard to sales, I think.

MR. SACK: Now, I'd like to object on the record to tag teaming the witnesses with two attorneys. I don't think it's necessary. I'm not going to require the witness not to answer, but I think it's prejudicial. It exhausts the witness where the examining attorney isn't doing work to ask questions.

And under this environment with no air conditioning or air flow here, it's extremely prejudicial. Also in view of the numerous categories I think almost 80 categories to testify to -- are you okay?

MR. HUSMANN: Yeah, I'm fine.

MR. SACK: It creates an atmosphere

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that's oppressive to the witness.

MR. HUSMANN: All right. For the record we raised this point with counsel at the deposition of Mr. Trumper and then verified it again later after that deposition. And at that time they said they had agreed to this procedure, and we have prepared for the deposition in accordance with that agreement.

MR. SACK: I believe we took this -- your statement under advisement at the time.

MR. HUSMANN: That is a mischaracterization of what was done.

MR. SACK: No, I don't think -- it wasn't something that we would have filed a motion on to stop. And, as I said, I'm not instructing the witness not to answer the question, but I think it's prejudicial to the witness.

EXAMINATION BY MR. SARSKAS

Q. If at any point, Mr. Plaumann, you feel like you're unable to continue because of your health, simply let us know, and we will

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figure out what to do as a result. Do you feel like there's any reason you can't give your best testimony today based on how you feel?

A. No. However --

Q. Are you under medication or --

A. No.

Q. -- impaired in any way?

A. No, I'm just uncomfortable because we don't have the air conditioning.

Q. If you feel at any time point in time like you can't continue, like your testimony is impaired, you should let me know immediately, please.

MR. SACK: Well, maybe we can put the air conditioning on. It's very hot in here. I mean, I'm not very comfortable. I don't think there's any reason why we can't have the air condition on.

THE WITNESS: I would like to have it on if we can, just because it is -- because I'm not feeling that well, the heat is not making me feel that good.

MR. SARSKAS: I have no objection

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to trying it with the air conditioning on so long as the equipment is functioning.

(Discussion off the record)

A. Okay.

Q. Mr. Plaumann, earlier you talked a little bit about the patents that have been asserted against West Bend in this lawsuit. And you also talked a little bit about the programmable slow cookers.

I'd like to focus your attention to the patents and the programmable slow cookers. It is Holmes' contention that patents in suit apply to only programmable slow cookers?

A. That's my understanding.

Q. Is there any feature on a manual slow cooker that relates to the patents in suit?

A. Not that I'm aware of.

Q. Besides the automatic shift to warm feature that you spoke about earlier, is there any other feature that is covered by the patents in suit here?

A. Well, I mentioned the chimney effect of the heat dissipation prior.

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Q. Do you believe that the chimney effect of heat dissipation applies to patents in suit?
A. That's not my understanding.
Q. Okay. It's a different patent that that chimney effect applies to, a patent not asserted in this lawsuit, correct?
MR. SACK: I'd like to object to the question. Mr. Plaumann is not a patent attorney. He's not a technical person. And I don't think he's been designated to testify about the patents and about the infringement subject matter.
Our expert has testified about infringement. We designated our expert on infringement questions. And you're asking a marketing person with no technical background legal issues and legal questions that he has no training or background in. So I would like to object to those questions.
MR. SARSKAS: Could we try to keep the objections sort of succinct?
MR. SACK: Well, I need to say it fully for the record. So I'll keep it as

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succinct as possible --

MR. SARSKAS: Thanks.

MR. SACK: -- but I have to put the entire objection in. Go ahead, and you can answer the question.

A. You would have to repeat that question.

(Testimony read)

MR. SACK: I'd like to object to the question again, because Mr. Plaumann was not designated for that question. Although if you could show to me where it was designated --

MR. SARSKAS: I'm talking about his earlier testimony, Alan. He gave earlier testimony about the chimney effect and whether or not that feature relates to the patents in suit.

Q. I simply want to make sure that you're clear on that point so that we move forward communicating correctly and accurately.

A. And this really is not my area of expertise, so I have to be careful on how I -- I don't want to misstate.

Q. And if your answer is you don't know, that's

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a perfectly fine answer. I'm not asking you to testify to something that you don't know.

A. Okay. All I can tell you is there's something mentioned in the patent regarding the chimney effect, but I really don't know if that's in play here.

Q. Fair enough. You talk about the automatic shift to warm feature being commercially successful and being a feature that's related to the patents in suit, correct?

A. Yes.

Q. I'd like to talk about some of the other features on the programmable slow cooker. I think earlier you talked about a countdown feature. Can you tell me what that is?

A. That's not -- that feature is not in the 3850 or 3860. It's a different programmable unit.

Q. Is the count down feature something that relates only to the programmable slow cookers?

A. Let me think about that question for a second.

THE WITNESS: Can you repeat that

00077

question?

(Testimony read).

A. No, we have that feature in the roaster oven I mentioned.

Q. And so the count down feature is available on both the manual slow cooker and a programmable slow cooker?

A. No, it's only --

Q. Only in the programmable?

A. Correct.

Q. But it's also available on a roaster is what you're saying?

A. Yes, not all roaster ovens, but on a particular roaster oven.

Q. Okay. What about Versaware, what is Versaware?

A. Versaware is -- the reason I laugh is because it's been something I've been working on for many, many years. It's very hard to bring to market. And it almost killed me and -- on the marketing thing. It just took forever to get to market.

But Versaware is designation. It's a trademark that we have on a slow cooker that

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has a specific type of material to the crockery.

Q. So Versaware can be removable or non-removable, would that be true?

A. No, it's only removable.

Q. And what's special about Versaware?

A. The type of material that allows you to put this on a stovetop as well as in a microwave and in a freezer and in an oven.

Q. And is that feature of Versaware only available on programmable slow cookers?

A. No.

Q. It's available on non-programmable --

A. Yes.

Q. -- or manual?

A. Yes.

Q. What is Smart Set?

A. Smart Set is a trademark that we have assigned to a highly programmable slow cooker. By that I mean it's got a lot of different programmable features to it.

Q. What are some of the different programmable features?

A. You can designate the type of meat, whether

00079

it's pork or chicken or beef. Excuse me. And it also has two cycles on it. So you can set it for four hours on low and two hours on high. You can set that and walk away from it and it will do that automatically.

A. There's no other unit on the market that does that. It has a temperature probe in it that you place into the meat, and you set it for the appropriate time.

When the meat gets to a preprogrammed temperature that your meat needs to be set at, that will override whatever length of time you have on the unit and automatically shift it to keep warm, so you don't overcook your meat. I think that's it, but there's a lot to that unit.

Q. What about the built-in recipes, is that part of Smart Set?

A. No.

Q. That's different?

A. Yes.

Q. How is that referred to?

A. We had a unit -- I believe the item number

00080

was 4865, but I'm not certain of that. But it was a recipe crock pot slow cooker, a different unit than this.

Q. Was that a programmable unit?

A. Yes.

Q. Did it have any of the programmable features in addition to the built in recipes?

A. Yes, it had the same features that the 3850 and 3860 units have, and it has the recipes that were already programmed into the unit.

Q. Aside from the automatic shift to warm and the built-in recipes, what other features of 3850 and the 3860 did it have?

A. You could set the hours that you wanted to run before it shifts to keep warm.

Q. Do you think that setting hours is covered by the patents in suit?

MR. SACK: Objection, calls for a legal conclusion.

A. Yeah, I don't believe I can answer that.

Q. You just don't --

A. I don't know.

Q. -- know one way or the other?

A. Yes.

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Q. I think you did say earlier -- and please correct me if I'm wrong -- that you believe the automatic shift to warm feature is covered by the patents in suit?

A. That's my understanding, yes.

Q. Is it your undertanding that there's any other feature of a programmable slow cooker that is covered by the patents in suit besides the automatic shift to warm?

MR. SACK: Same objection.

A. I don't believe I'm -- I have enough knowledge to answer that question.

Q. So as you understand it, sitting here today, the only feature that you're aware of that would be covered by the patents in suit is the automatic shift to warm; is that true?

A. No, I don't know if there are other things that covered, but the marketing side of it, the most important feature that we have is the automatic shift to keep warm. And that's what we -- that's how we marketed the product with the programmable, you know, aspects to it.

Q. My question was a little bit different. I'm

00082

trying to understand what you believe to be covered by the patents in suit. And I think you said that the automatic shift to warm feature is covered by the patents in suit, correct?

A. That's correct.

Q. Are you aware of any other features that are covered by the patents in suit?

MR. SACK: Again, same objection.

A. I am not aware of any other specific issues that are in this discussion other than that. And I had mentioned the chimney effect, but I'm not sure that's in this one.

Q. And I'm clear on that. I just -- besides the chimney effect and besides the automatic shift to warm feature, you're not aware of any other feature that would be covered by the patents in suit that you've asserted against West Bend?

A. I'm not aware of that.

Q. What is extreme temperature cookware?

A. That's Versaware.

Q. Just another time for the same thing?

A. More of an internal name. Versaware became

00083

what we market it as.

Q. Okay. What is a removable stoneware?

A. It's stoneware that sets into a wrapper or base that you can take out of the wrapper or base.

Q. What is Rinse Clean?

A. It's a designate for the product being easy to clean, the crockery being easy to clean.

Q. What is Nestled Crock?

A. I'm not sure. I'm just trying to understand all the features of it.

A. I'm not sure what Nestled Crock is.

Q. What is Duet?

A. Duet? What are you referring to?

Q. I'm just referring to the documents that you've provided us. They list a number of features that are contained on slow cookers?

A. Okay.

Q. Sold, marketed by the Holmes Group.

A. Okay. That helps me in understanding your context.

Q. Fair enough.

A. Duet was a slow cooker that we introduced that the ceramic had a divider in the center

00084

of it that was non-removable. It was all ceramic. So you could put two different types meats or vegetables or something, and they didn't mix in there.

Q. Was that feature offered on both programmable and non-programmable?

A. I believe it was only on non-programmable. I'm sorry. That's not correct. We ended up doing a pack in product for I think it was Sam's Club where it was a programmable unit that had regular crockery, and we also had packed in the box a -- the Duet crockery.

Q. So was the Duet crockery then just another pot able to fit in to the same base?

A. Yes.

Q. So you could use it either as a single pot or a duel pot?

A. That's correct.

Q. And it was programmable?

A. Correct.

Q. In the case of the Sam's Club cooker?

A. That's correct.

Q. What is Auto Cook?

A. I don't know.

00085

Q. Are there crock pots or slow cookers that are used for travel or portability?

A. Yes.

Q. Is that different than a unit that's meant to be used in a single location, aa kitchen?

A. No, it just includes a bag.

Q. So a travel bag is the only difference?

A. On our units, yes.

Q. Is it marketed any differently?

A. Just that it has a bag inside, you know, a packet.

Q. But it's not different in any other way?

A. No.

Q. There are different finishes on slow cookers, correct?

A. That's correct.

Q. Some of them are stainless steel. Some of them are white. And that's true with both programmable and manual slow cookers, you can get them with different finishes?

A. That's correct.

Q. How do all of those different features get studied by Holmes when it's deciding how to advertise or market its slow cookers or

00086

develop its slow cookers?

A. Well, there are a variety of things that are are considered when you do that. One is what's currently on the market today and if there is premiums to certain types of things.

One of the things we know is consumers recognize that stainless steel is more expensive than a regular painted wrapper. They don't think of it as a painted wrapper of stainless steel, but they know stainless steel costs more.

And they way you know that is looking at other what's called white goods, you know, refrigerators, appliances, those types of things. And so there's a premium in terms of price for that. And you look at -- part of it is driven by how much it costs us to us manufacturer.

There are some finishes that you might not as a consumer give a lot of credit to, but they cost us more money. So we have to determine whether or not we can charge more money for that product or not.

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Q. And what kinds of features has the Holmes Group determined it can increase its margins on because consumers are willing to pay more than it costs Holmes to put in the slow cooker?

A. That's a very broad question. I can't really answer that definitively. There are certain -- we know programmable cost more because it costs us a lot more to make that programmable feature in a slow cooker than it does to have a manual knob.

But then there are other things that, you know, might be no additional cost in terms of the manufacturing of a product that we think we can get a premium for anyway. You know, so we can -- we can take the price up in the market and, you know, you do consumer research and try to get a sense what have a customer thinks is valuable and what's not.

Q. Is programmable something that's viewed by Holmes as a product that's able to generate a larger margin than a manual?

A. Absolutely, yes.

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Q. What -- today what's the relative -- roughly the relative share of manual versus programmable slow cookers that Holmes sells?

A. Today we have -- about 40 percent of our business in slow cookers are done in the programmable slow cooker.

Q. Is it fair to say that the emphasis on trying to increase that percentage of programmables versus manual?

A. That's fair to say, yes.

Q. And why is that?

A. Because it's a higher profit margin, and it's a higher sale price. So we get more revenue.

Q. Is there any competitive reason?

A. Well, the fact that we were the only ones out there that had programmable for a period of time and that, you know, that we had IP. So people could not copy us. So we wanted to emphasize things that are unique to us.

Q. Do you think that that IP covers the fact that the slow cooker is programmable?

A. I think it IP covers the automatic shift to warm.

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Q. But not necessarily that the slow cooker is programmable?

A. Not necessarily in the way we'd find define that. It's my understanding a competitor could have a digital unit that could set the hours and the time, and that's fine, but not that it would automatically shift to keep warm.

Q. Are you aware of any slow cookers on the market today that are just as you described, in other words they're programmable because they have a digital display or a touch pad but do not have the auto shift to warm feature?

A. No, I'm not.

Q. So all of the nine manufacturers that you talked about earlier as being infringing, you're not aware of any products offered by any of those that would fall into that category that don't have the auto shit to warm?

A. That's correct. All those nine I mentioned have an automatic shift to keep warm setting.

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Q. Have you ever heard the Auto Protect Safety System Serve Setting?

A. Can you repeat that?

Q. I thought that I read in one of the documents that Holmes produced a reference to a patented Auto Protect Safety System Serve Setting?

A. I'm aware of everything you said up until the serve setting.

Q. Okay. What do you understand is the patented Auto Protect Safety System?

A. We don't today produce that product, and it's about been a while. My understanding of it is that we had a -- we had built into the unit a fuse that is there was a surge of power in your home, it would shut the unit off. So it was an auto protect safety system.

Q. And why is that no longer used?

A. We -- we had an abundance of returns because it would pop the fuse in the unit because its surprising how much you can get at home where you'll have surges in your power.

Q. Right.

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A. And sometimes you'll notice it the power failure symbolling something at home, but you didn't realize it while you were at work, but you have to set that fuse to blow, you know, at a certain level so that it has some value to it. And they were blowing a lot. So we deemed that it wasn't practical for us to continue to do that.

Q. Okay. Why would a customer in market for programmable slow cooker by a Rival instead of a competitors?

A. Because -- oh, why would a customer?

Q. Today.

A. Today. This is recognizing that there are units on the market that we believe infringe on our patent.

Q. I understand that that's you view, so I understand you'll build that into your answer. Go ahead.

A. I mean in this context, it's hard for me to answer that just because I don't there there should be others -- from what I know I don't think there should be other units on the market, so they would only buy ours. And

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that's why they would buy Rival. That's the only one that you could buy that has that feature.

Q. Are you saying that the only thing that a consumer cares about is the auto shift to warm feature?

A. No, but, I'm saying based on my understanding of our patents, we should be the only ones on the market with that feature. So by default that's all the consumer should be buying.

Q. Because in your view none of those other products have a right to be on the shelf with yours?

A. Correct.

Q. Other than the auto shift to warm feature, what other features do consumers care about when they're looking to buy a programmable slow cooker?

A. Well, one of the things that we have is a very strong brand name, Crock Pot. And that is something that the consumer is aware of and has a preferred opinion of.

Q. How do you know that?

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A. We've done research that shows that, but also just practically if you look on the shelf, we dominate the shelf. So the retailers recognize the value of the Crock Pot brand as well.

Q. When you think of your customer, the Holmes Group customer, do you think of the retailer, or do you think of the consumer?

A. Repeat that, please.

Q. When you think about who your customer is, do you think about the retailer, Wal-Mart, Kohl's, Target, or do you think about the consumer?

A. It depends on what our -- what our objective is. We think about both of them, so it depends on what the situation is.

Q. Who decides what slow cooker ends up on the shelf? Is it the buyer at the store, or is it Holmes Group or some combination?

A. It's the buyer at the store. We try to influence them, but they are the ones that make the final decision on what they should put on the shelf.

Q. When you say you try to influence them, do

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you use consumer research to try to explain to the buyer what consumers will like about your slow cooker?

A. Yes, that's one thing we do.

Q. What kind of consumer research do you use?

A. We use the two -- there qualitative and quantitative.

Q. Okay.

A. And we use both of them.

Q. How do you gather that qualitative and quantitative research?

A. We hire some independent company.

Q. Who do you higher?

A. It varies.

Q. Who is the last company that you hired?

A. Unfortunately the name escapes me, but we can get that easily for you.

Q. Do you know whether you've produced the most recent consumer research that you've done on slow cookers?

A. I believe we have.

Q. And how would you use that research?

A. Well, we start by giving some objectives to the research company. And that varies on

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what we're trying to do. And so then that person will help guide us or that company on whether it should be qualitative or quantitative. And then, you know, we come to a price on what's that going to cost us, and then they go out and do that research for us. We take that information back and make some determinations based on what we got back from the research.

Q. You said before that consumer research has revealed to Holmes that the commercial success of the programmable slow cooker is due outstandingly to the auto shift to warm feature; is that accurate?

A. That's accurate.

Q. What is that statement based on?

A. It's based on an accumulation of research that we've done. And it's also based on just the facts of look at our business. You know, we went from zero in 1999 before the introduction of any programmable slow cookers to today it's 40 percent of our business. So the consumers have responded very strongly to the programmable part of

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it.

And we have research that shows that the automatic shift to keep warm is an extremely important feature.

Q. Do you equate automatic shift to warm and programmable as being the same thing?

A. No. I mean they -- you can have other features on a programmable slow cooker that don't necessarily have that automatic shift to keep warm. But all of our units that are programmable have that feature.

Q. And what has the consumer research told you about some of the other features on programmable slow cookers besides automatic shift to warm?

A. I can't specifically recall anything else to the programmable aspect of it besides that.

Q. So you're saying that the consumer research has taught Holmes that the automatic shift to warm feature is the most important feature. Do you recall what the second or third most important features are?

A. No.

Q. Can you think of any documents that you

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would look to to find the answer to that question?

A. It would have to be in the consumer research findings that we had.

Q. Can you think of any ways that Holmes has behaved in the marketplace that would reveal that it finds some other feature of a programmable slow cooker to be important besides the auto shift to warm?

A. Only in some of the new products. The Smart Set that you referred to earlier -- excuse me. We have talked to consumers about these ideas we had, and they liked the ideas a lot, being able to specifically set it to two different cycles, which we don't have today on the market.

Q. Why not?

A. I'm trying --

Q. You said it's not on the market today. Why not?

A. Yeah, I'm -- you can't see this, but I'm thinking --

Q. Okay.

A. -- to determine if it's actually shipped

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yet. And we can go back and look for it. We're right at where we could have shipped the product, and I'm not sure if we have.

MR. SACK: Counsel, I'd like you not to interrupt the witness in the middle of his answers. He has to wait till you finish, and you need to wait till he finishes before you ask questions in the middle of of his discussions.

Q. And I apologize for cutting you off.

MR. SACK: Yeah, I'm sure you didn't do it on purpose. I just need to caution you.

A. Can I please take a short break?

Q. Sure.

THE VIDEOGRAPHER: The time is 11:09. We're off the record.

(Recess)

THE VIDEOGRAPHER: This is the beginning of tape No. 2 in the deposition of of Bart Plaumann. The time is 10:13, and we are on the record.

Q. Mr. Plaumann, does Holmes contend that it ever marked with the patents in suit any of

00099

its programmable slow cookers?

A. I don't know if Holmes contends that.

Q. Do you know as a matter of fact whether any programmable slow cookers sold by Holmes contains the marking of the patents in suit?

A. I believe they do.

Q. You believe they do today?

A. Yes.

Q. Do you know when that would have began?

A. No.

Q. Do you know whether they were marked before the lawsuit was filed?

A. I believe they were.

Q. What's that belief based on?

A. I recollect a discussion about marking our product in general at some point in the past.

Q. And do you know when that discussion took place?

A. No, I don't.

Q. Do you know with whom that discussion took place?

A. Specifically, no. I know it was with my marketing department through discussion that

00100

they had with legal.

Q. Did you ever discuss marking with anybody in legal?

A. I know I have had a conversation about marking product, not specifically to a product of ours but just in general.

Q. Other than what we've talked about, do you have any other basis for your belief that Holmes has marked its programmable slow cooker with the patents in suit?

A. Other than that, no.

Q. Does Holmes contend that it's been damaged by West Bend --

A. Yes.

Q. -- as a result of infringemeant?

A. Yes.

Q. And tell me what that damage is.

A. What the contention is?

Q. Correct.

A. Excuse me. The contention is that by West Bend coming out with a product that infringes on our patents, they have secured business that otherwise we would have had.

Q. And when you say infringes on the patents,

00101

you're talking again about the automatic shift to warm?

A. That's correct.

Q. Other than the automatic shift to warm, is there anything else that you contend infringes?

MR. SACK: Objection, asked and answered several times.

Q. You can go ahead and answer.

A. I'm not certain. That is the contention that I know that we are pursuing.

Q. So as of today, you're not aware of any other basis for an assertion of infringement besides the automatic shift to warm feature, correct?

MR. SACK: Objection.

A. Yeah, I believe that's what I said.

Q. Okay. But you're not sure that that's what you said?

A. No. That is -- my contention is it's because of the automatic shift to keep warm and that it's not due to other features that we may have patents that cover.

Q. Other than the automatic shift to warm

00102

feature, which you talked about as having been commercially successful, are there any other features on a programmable slow cooker that have been commercially successful?

A. It's hard for me to separate what you just said, because all of our programmable slow cookers have had the automatic keep warm. And we know that to be -- from the research I've talked about earlier, we know that to be a very important feature. So I can't really with any -- any certainty say there's other parts of the programmable aspects that the consumers think is a great value.

Q. What is Smart Part?

A. The Smart Part was a product that we introduced that was an accessory that you plug into the wall and convert a manual unit into a programmable unit.

Q. How exactly does that work?

A. You would need to talk to an engineer to get the specifics that way. What I can tell you is what I understand from, you know, marketing the product.

Q. I understand.

00103

A. Is it plugs into the wall and then you take the plug from your manual slow cooker plug that into the smart part, and you then -- it then operates in similar fashion as the regular programmable slow cooker. Excuse me -- as a regular programmable slow cooker.

Q. Does the Smart Part incorporate the automatic shift to warm feature?

A. I believe it does, but I can't tell you that with a certainty. It's been awhile since I was familiar with that product.

Q. Does Smart Part -- strike that. The Smart Part currently being sold?

A. Not as an active sku.

Q. When did that change?

A. Quite sometime ago. It's been at least two years, maybe longer since we discontinued it.

Q. Why did it get discontinue?

A. It didn't perform well. We didn't sell a lot. It performed great. We didn't sell a lot of them.

Q. Is there any consumer research that deals with the Smart Part?

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A. I'm not -- excuse me. I'm not certain.

Q. Do you have any understanding as to why it didn't sell well?

A. My belief is it was -- we priced it a little bit higher.

Q. What's your believe about how it was priced

A. See now you're testing me. I think that was -- it went out at $19.99 at retail.

But I also have an opinion, being with the company for the length of time I have, that that being integrated into the union was real important, having a fully integrated programmable slow cooker versus having an accessory that converts your unit that you have at home.

Q. And why do you think that? In essence I think what you're saying is that a consumer faced with the purchase decision of a fully integreated programmable slow cooker or this Smart Part for $19.99 to upgrade their existing manual slow cooker would be more likely to choose the fully integrated unit. Is that what you're saying?

A. That's my personal belief.

00105

Q. What's that based on?

A. My personal -- just my knowledge of the business and waht I see happens.

Q. Is it based on any of the consumer research you've talked about today?

A. No.

Q. Did Holmes ever do any research to find out why?

A. I don't believe we did.

Q. Do you know why you didn't?

A. In this scheme of all of our business, I would say it's because it wasn't that important. You know, with all products we introduced, we were disappointed, but not enough to go back and do an audit.

Q. Was it a -- was the Smart Part a profitable on a per unit basis product to sell?

A. At the price we originally sold it at, yes.

Q. So the problem was that it wasn't selling, not that it wasn't profitable when it did sell?

A. Correct.

Q. Do you remember what the margin was?

A. No, I just can tell you that it was high.

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Q. And when you say it was high, do you mean high relative to a slow cooker on a percentage basis?

A. Yes.

Q. So on a percentage basis it would have been higher than a slow cooker?

A. Yes.

Q. Do you remember --

A. It would have been higher than our slow cooker category.

Q. What do you mean by that?

A. If you've seen -- looked at all the documents we sent you, we sell a whole lot of slow cookers.

Q. Right.

A. And so it's the aggregate that I'm talking about. When you do the margin for the whole slow cooker category, than you have the Smart Part I remember being higher.

Q. And do you recall what the gross margin number of the full slow cooker category is approximately?

A. Yes.

Q. What is it?

00107

A. This year it will be approximately 43 percent.

Q. Is that all slow cookers?

A. Yes.

Q. Do you know what the breakdown is between programmable and manual?

A. We have that information.

Q. But you don't know it offhand?

A. Not off the top of my head, but I do know the programmable slow cooker categories is higher margin thant he non-programmable.

Q. Okay. And the Smart Part had a higher margin than even the programmable slow cooker margin, do you think?

A. That's my recollection --

Q. Okay.

A. -- at the price we originally quoted it at. We ended up closing out some product. So I don't recall what those prices were, but I know they were less.

Q. Do you know whether Holmes ever made the decision to lower the prior to try to sell more Smart Parts?

A. I think we did, but I'm not certain. I'm

00108

pretty sure we did.

Q. Okay. You touched on this briefly this morning. Is there any convention to the model numbers? Convention to the way you set your model numbers? Some of them appear to have the size built into the number. Sometimes it's toward the end. It's a little hard to tell.

A. Yes, it is.

Q. Is there any rational way to figure it out?

MR. SACK: Is there a a question right now?

THE WITNESS: I believe his question is is there any rational way to figure out the sizes and the description based on the model numbers.

Q. Or otherwise tell what a model is based on the number.

MR. SACKS: I'd like to object to the form of the question. Can you ask one question.

Q. Is there any way to tell based on the slow cooker model number what product that model number refers to?

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A. Usually.
Q. What does that mean?
A. That means that there was an attempt to make sense with the model number, but it doesn't always work.
Q. Okay. Sometimes there are letter at the end of a model number.
A. Correct.
Q. What do those refer to?
A. A variety of things.
Q. Such as?
A. It could mean a color. It could mean a customer.
Q. Okay.
A. And it could be something more than that.
Q. Oh, like a finish. Okay. Does Holmes view other products besides slow cookers as competitive products, such as rice cookers or steamers or other products?
A. Yes.
Q. Explain how.
A. Holmes, the kitchen business that I ran is in a lot of different categories of kitchen electrics. So anybody else that

00110

manufactured a product in that category would be considered a competitive company.

Q. But would it be competitive in the sense that it competes with Holmes' slow cookers?

A. No.

Q. So you wouldn't view a a rice cooker sold by a competitor to be competing with a slow cooker?

A. No.

Q. Okay. And the same would be true of a steamer, that would not be competition for a Holmes' slow cooker, correct?

A. That's correct.

Q. What is Holmes' manufacturing capability?

A. That's not an area of expertise for me to tell you that.

Q. Who is the person who has that expertise?

A. It would be somebody in our -- that heads up our manufacturing.

Q. Do you have any knowledge about Holmes' ability to change manufacturing capacity?

A. Yes.

Q. What do you know about that?

A. Can be more specific with that question?

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Q. Yeah. I'm trying to understand how Holmes can adjust manufacturing capacity or capability.

A. We provide the factories with forecasts on -- which is what we think we're going to buy. And depending on what they forecasts are, the factory makes adjustments to what they're going to manufacture.

Q. How many factories are we talking about?

A. Quite a few. In all the products that I was responsible for.

Q. Now, I'm talking about just slow cookers, are you?

A. No.

Q. Okay. Let's talk about just slow cookers.

A. Okay.

Q. How many factories are we talking about?

A. Today I believe it's just two.

Q. Which two?

A. A factory that is owned 100 percent by our company and then an OEM -- not OEM, but an original equipment manufacturer.

Q. What is the name of the factory that is 100 percent owned by Holmes?

00112

A. It's been known under the name Esteem, E-S-T-E-E-M. Like high esteem, poor esteem.

Q. And when did Holmes acquire that manufacturing facilty?

A. I believe we started it in 1989.

Q. Do you produce only Holmes products at that facility?

A. Yes. Today we do.

Q. Was that different in the past?

A. A couple of years ago we were manufactured a product for Proctor & Gamble.

Q. What kind of product?

A. An air freshener.

Q. Any other exceptions to that being the facility where only Holmes products are produced?

A. Not that I'm aware of.

Q. Is their role limited to manufacturing, or do they do any design or engineering or more than just manufacturing?

A. You're referring to Esteem?

Q. Yes.

A. They do some design, you know, directed by the U.S. based business. And they do a lot

00113

of engineering.

Q. Do you know what capacity Esteem typically runs at?

A. No.

Q. Would you have the ability to get that information?

A. Yes.

Q. What would you do to get the information?

A. I would contact our engineering head and ask him.

Q. What's his name?

A. Jerry Lizinksi.

Q. And where he is based?

A. He's based in Boca Raton, Florida.

Q. And that's not information that would be difficult to get?

A. I can't really answer that.

Q. You don't know one way or the other?

A. Correct.

Q. Do you have any sense for whether Esteem is running at 100 percent capacity or 80 or 50?

A. No, I don't.

Q. Okay. The other facility that does manufacturing for you, what is the name of

00114

that OEM?

A. The name of that OEM that I'm referring to is Yida, Y-I-D-A.

Q. And what is its relationship with Holmes?

A. They manufacturer slow cooker bases for us, and they assemble slow cookers into the finished product.

Q. Both manual and programmable?

A. They only manufacturer -- or they only manufacture bases for the manual and only assemble bases for the manual.

Q. So Yida doesn't do anything relating to programmable cookers?

A. Not that I'm aware of.

Q. So all of the manufacturing for programmable cookers takes place at Esteem?

A. That's my understanding.

Q. Do you know what changes in manufacturing at Esteem do or how they affect costs of programmable slow cookers?

A. Can you be more specific on that?

Q. If there's an increase in manufacturing of programmable slow cooker by Esteem, do you know that how that impacts upon Holmes cost

00115

for slow cookers?

A. You're asking if there's an increase in manufacturing costs?

Q. Correct.

A. Yes.

Q. And what do you base that answer on?

A. They communicate to us the change in the cost.

Q. And those get directly passed on to Holmes?

A. Yes.

Q. And that pass-on is immediate?

A. Not -- not always.

Q. Can you give me an example of what you mean?

A. Yeah, we set prices even from our -- our own factory that says this is what they're going to charge us. And then there are variances that come across, you know, daily and as commodities go up and down or there's a change in the labor rate or something like that.

Q. Right.

A. And those go through as variances, that hit into my P&L, but not neccessarily on the material cost side.

00116

Q. So for some of those variances Esteem might take the hit, for example, if there's an increase in labor costs. And on others, Holmes might see the increased cost come through. Is what what you're saying?

A. No, I'll get the hit. Holmes will get the hit no matter what, or the benefit.

Q. Okay.

A. It just may not be in the material costs.

Q. Where would it show up?

A. In a variance line.

Q. I see. And if it shows up in the variance line, how would you determine what was the cause?

A. If there is a big enough variance, we investigate it a little bit more than if it's a minimal variance. And you notice that monthly with the monthly P&L review.

Q. Do you know whether those monthly P&Ls were produced in this litigation?

A. I don't know. I can tell you that before we were bought by Jarden, we didn't have that. It was aggregate into the Holmes Group.

Q. And how specific are those P&Ls? Will they

00117

drill down to slow cookers and particular models or --

A. No.

Q. -- is it aggregate?

A. It's an aggregate of my whole business.

Q. And there's no way to separate out slow cookers or particular models?

A. I don't know if there is or not.

Q. But you don't do that?

A. No.

Q. Do you have any understanding as you sit here today whether or not Esteem could increase its manufacturing capability to produce more slow cookers?

A. My belief is they can.

Q. What is that belief based on?

A. Discussions I've had with Esteem about the ability to manufacturer our products.

Q. Who at Esteem has told you that they have the ability to increase manufacturing?

A. This discussion goes back -- this discussion goes back quite a while, I'm going to say a year or more. And it's the manufacturing head of the Esteem.

00118

Q. What's his name?

A. Tony Lee.

Q. And where is he?

A. He's in Tang Xia, China.

Q. How is that spelled?

A. T-A-N-G. That's one word. And X-I-A is the other.

Q. Earlier we talked a little bit about retailers making the decision as to what products appear on their shelves. Are you aware of any retailers where Rival competitors were selling programmable slow cookers but Rival is not?

A. I believe Sears is not carrying any of our programmables.

Q. Do you know why Sears isn't carrying them?

A. Yes.

Q. Why?

A. Because they purchased Europros programmable slow cooker.

Q. And why does that mean they're not willing to sell yours?

A. They replaced ours with theirs.

Q. Do you know why?

00119

A. I believe it's because they offered them a lower price than what they were paying us and a little bit different feature set.

Q. Do you now what feature set?

A. This is going back a little bit. I believe that it was a 7 quart size, and our unit was five-and-a-half or six.

Q. And you said that the price was another consideration?

A. Yes, we were informed by the buyer that they were able to make more margin at the price that Europro quoted them.

Q. Do you -- did you, when you found this out, compare the Europro versus the slow cooker that you were trying to sell to Sears?

A. We had been selling to Sears.

Q. Okay. Did you do a comparison of --

A. Yes.

Q. And what did that comparison reveal?

A. The only which I just mentioned, I recall the 7 quart versus our smaller size. I don't recall if there were any other features.

Q. Okay. So size and price were the two main

00120

reasons that Sears decided to stop selling the Rival --

A. Yes.

Q. -- slow cooker and go with the Europro?

A. Yeah. I think I have to --

MR. SACK: Excuse me, Mr. Plaumann. Could you just wait till the question is over.

THE WITNESS: I was just going to apologize.

MR. SACK: Oh, okay.

THE WITNESS: Because I cut him off, as I did you to tell you that.

MR. SARSKAS: We'll all be very proficient at the end of the day.

THE WITNESS: That's right.

Q. Are you aware of any other circumstances such as the one with Sears where there was discussion about replacing one slow cooker for another because of the size or price or any other feature?

A. No, not as a replacement.

Q. Has Holmes done anything to try to repair that relationship with Sears?

00121

A. Well, the relationship was not damaged with Sears. And Alan doesn't like it when I then try to interpret what you said, but if you mean have we tried to get back on the shelf, of course we have.

Q. What have you tried to do?

A. Well, for one thing we sued Europro. And we've also tried to go back in to the customer and, you know, tell them the value of our products and the fact that that unit infringes in our opinion.

Q. Have you made any progress with Sears?

A. Not at this point.

Q. When you explained to them the value of the Holmes product, what kinds of things did you explain to them?

A. Well, in addition to what we believe to be an infringing product, we talked about the Crock Pot brand.

Q. Anything else?

A. Yes, we generally talk about our quality, our product of delivery, those types of things.

Q. Does Holmes pay product placement fees to

00122

retailers?

A. It depends on how you want to determine product placement fees. There are some customers, yes, it's part of their program and some that there aren't.

Q. Can you explain what you mean by that?

A. Kohl's we have a slotting allowance, which is probably the same thing as product placement fees.

Q. How does that work?

A. They have that as a part of their -- their -- I don't know if company policy is the right thing to say, but if you get a new sku in at Kohl's, you have to pay 25 -- I'm making this number up, because I'm not sure if it's right. But you pay them $25,000 for that -- that slot.

Q. And what is that designed to cover?

A. For them it's designed to cover the cost of exiting whatever other product, you know, you're replacing on the shelf.

Q. And so that fee is paid at the beginning of a relationship with the retailer or at least a transition of a new product into that

00123

retailer's stores?

A. I'm not certain when they take that deduction for that payment. It's agreed to prior to the product shipping.

Q. Okay. What about advertising? Is there any reimbursement for payments made for advertising, or does the retailer do all of their own?

A. It varies by retailer.

Q. Can you explain what you mean by that?

A. Some retailers require a high percentage than others. Some don't require any.

Q. So in some cases a retailer might ask you to participate in their advertising that includes your product?

A. Correct.

Q. And that varies by advertiser?

A. That varies by customer.

Q. By customer, okay. How does Holmes factor in the product placement fees or advertising assistance in its pricing policies, marketing policies, if at all?

A. We have what is known -- what we -- is a profromer that we work on in our company.

00124

Q. And how does that information get put on the proformer and then used by Holmes?

A. It starts with the sales manager and the customer talking. They communicate back to our sales coordination department if you want to call it that, a marketing person. Who then goes into the system and, you know, there's a proformer for a customer. So we'll keep with Kohl's. You pull up the Kohl's proformer and plug in the different terms and conditions that they require and the sell price of the product, and then it calculates the bottom line. And then we make a determinion on whether that's acceptable or not.

Q. And so those fees end up being factored into your gross margin numbers?

A. Yes.

Q. Essentially in the way that you've described, you end up with a net number?

A. Correct.

Q. Okay. How does Holmes track market share for programmable slow cookers?

A. There's not one specific source that you can

00125

go to that has the entire country. So there's never 100 percent. You have to extrapolate some. But A.C. Nielson is one. Customer POS is another.

Q. Are there any other sources for market share information?

A. I'm not certain if we use anything else besides that.

Q. Do you independently of A.C. Nielson or Customer POS try to gather that kind of information?

A. Can we take a break for just a minute?

Q. Sure.

THE VIDEOGRAPHER: The time is 10:48. We are off the record.

(Recess)

THE VIDEOGRAPHER: Back on the record. The time is 11:56.

Q. Mr. Plaumann, if you would be kind enough to get the binder that I handed you earlier, which is the second of the two. You got the cord wrapped in that. Don't pull it out. If you would be kind enough to turn to the document at tab 51, please.

00126

A. I'm there.

MR. SARSKAS: We're going mark this as the next exhibit.

Q. If you would be kind enough to identify this document for me, please?

MR. SACK: Excuse me. Are these exhibits -- just for the record, do these exhibits go along with the tab numbers, so they're Exhibit 51? Or are they Exhibits 1, 2, 3, 4, 5?

MR. SARSKAS: I am not going to mark all of the tabbed pages as exhibits.

MR. SACK: Okay. Could you get us -- usually in the past these things have been marked as exhibits in order. Could you get me some sort of document which tells me which tab is which exhibit, you know, in a relatively quick time?

MR. SARSKAS: Sure.

MR. SACK: So I could do that.

MR. SARSKAS: Absolutely.

MR. SACK: Because I thought you were talking about -- those were the exhibit numbers also.

00127

A. This appears to be a portion of a P&L statement.

Q. You seem to be uncertain.

A. Well, because there's -- we don't have the rest of the SG&A. And where you see a staple, and there's not a second page.

Q. Okay.

A. So that's why.

Q. What would be contained on the second page?

A. I would have to really look at a P&L to make sure what I'm telling you is accurate, but underneath this cost of goods, then we would have the SG&A --

(Discussion off the record).

A. Selling general and administrative costs, which include selling, marketing some of the those things.

Q. Is this for the entire kitchen business unit?

A. Yes.

Q. And you don't keep this kind of data broken down further beyond the kitchen business unit; is that correct?

A. Can you be more specific in that question?

00128

Q. You don't do profit -- I think you said earlier that Holmes doesn't prepare profit and loss statements further down beyond the kitchen business unit. That's the lowest level of a profit and loss statement; is that true?

A. That is correct.

Q. What is the coop category?

A. That is amount of money that we give to our customers to advertise our products.

Q. And what about the intercompany markup category?

A. Where do you find that line? I don't see that on here.

Q. I don't either. I'll withdraw the question.

A. Okay.

Q. What about the licensing income, what is that based on?

A. That is based on a contract that we have with a company that licenses our Crock Pot brand.

Q. Which company is that?

A. The division is Banquet. The company is Conagra

00129

Q. And although it doesn't show up on this document, has there been other licensing revenue, interbrand revenue in the past?

A. Yes.

Q. What does that attribute to?

A. We have received royalties on our Crock Pot brand for cookbooks.

Q. Anything else?

A. Nothing that I can recall.

Q. Is this the kind of document that Holmes creates and keeps in the ordinary course of its business?

A. It is now since we were acquired by -- from -- by Jarden.

Q. But it wasn't prior to the acquisition?

A. Correct.

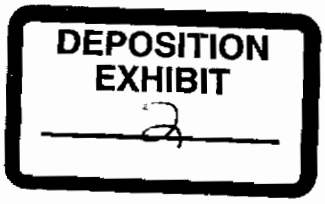
Q. Can you turn to tab 49, please.

A. I'm there.

MR. SARSKAS: We'll mark that as the next in line.

Q. Can you identify this document for me, please.

A. This appears to be a document that shows all of our programmable slow cooker sales by



THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF MASSACHUSETTS

THE HOLMES GROUP, INC.,

Plaintiff,

v.

WEST BEND HOUSEWARES, LLC and FOCUS PRODUCTS GROUP, LLC,

Defendants.

Civil Action No. 05-CV-11367 WGY
(Alexander, M.J.)

HOLMES' RESPONSES AND OBJECTIONS TO DEFENDANTS' AMENDED FIRST RULE 30(B)(6) DEPOSITION NOTICE

The Holmes Group, Inc. ("Holmes") hereby objects as follows to Defendants' Amended Rule Notice 30(b)(6) Deposition Notice to Holmes.

GENERAL OBJECTIONS

The following Objections are made to the entirety of Defendants' Amended 30(b)(6) Notice of Deposition to Holmes:

1. Holmes objects to the Notice to the extent West Bend intends to exceed the maximum duration of seven (7) hours prescribed by Fed.R.Civ.P. 30(d)(2).

2. Holmes objects to the Notice to the extent that any topic for testimony purports, through definitions or otherwise, to impose obligations beyond those contained in the Federal Rules of Civil Procedure.

3. Holmes objects to each of the topics for testimony insofar as they are unnecessary, burdensome and vexatious in that they are cumulative and/or duplicative of documents or information already requested in Defendants' production requests and interrogatories.

4. Holmes objects to each of the topics for testimony insofar as it lacks the reasonable particularity required by Rule 30(b)(6), or are vague, overly broad, oppressive, harassing or vexatious; impose burden or expense that outweighs their likely benefit; seek a legal conclusion or expert testimony; and/or seek information no relevant to the subject matter of this litigation.

5. Holmes objects to each of the topics for testimony insofar as it is overly broad, unduly burdensome, and not relevant to the extent that any topic for testimony is unlimited in temporal scope or otherwise not limited to a time frame relevant to this litigation.

6. Holmes objects to each of the topics for testimony insofar as it seeks information protected against disclosure by the attorney client-privilege, the work-product doctrine, or any other applicable privilege or rule of confidentiality.

7. Holmes objects to each of the topics for testimony insofar as it seeks disclosure of information that would violate the privacy rights of individuals or request disclosure of confidential commercial information, trade secrets, and/or proprietary information.

SPECIFIC DESIGNATIONS

TOPIC 1: Holmes' document gathering efforts in this litigation.

RESPONSE 1: - Holmes designates Mr. Plaumann to testify as to this category.

TOPIC 2: The conception dates for the alleged inventions of claims 13, 14, 17 and 19 of U.S. Patent No. 6,573,483 ("the '483 patent") and the individuals involved in such conception, including the identification of any documents supporting these dates.

RESPONSE 2: - Holmes designates Mr. Thrasher to testify as to this category.

TOPIC 3: The first reduction to practice for the alleged inventions of claims 13, 14, 17, and 19 of the '483 patent and the individuals involved in such reduction to practice, including the identification of documents supporting these dates.

RESPONSE 3: - Holmes designates Mr. Thrasher to testify as to this category.

TOPIC 4: The diligence, if any, in reducing to practice the alleged inventions of claims 13, 14, 17, and 19 of the '483 patent and the individuals involved in such diligent reduction to practice, including the identification of documents supporting these dates.

RESPONSE 4: - Holmes designates Mr. Thrasher to testify as to this category.

TOPIC 5: The conception dates for the alleged inventions of claims 20, 24, 26, 27, and 29 of U.S. Patent No. 6,740,855 ("the '855 patent") and the individuals involved in such conception, including the identification of documents supporting these dates.

RESPONSE 5: - Holmes designates Mr. Thrasher to testify as to this category.

TOPIC 6: The reduction to practice for the alleged inventions of claims 20, 24, 26, 27, and 29 of the '855 patent and the individuals involved in such reduction to practice, including the identification of documents supporting these dates.

RESPONSE 6: - Holmes designates Mr. Thrasher to testify as to this category.

TOPIC 7: The diligence, if any, in reducing to practice the alleged inventions of claims 20, 24, 26, 27, and 29 of the '855 patent and the individuals involved in such diligent reduction to practice, including the identification of documents supporting these dates.

RESPONSE 7: - Holmes designates Mr. Thrasher to testify as to this category.

TOPIC 8: The reasons for and factual basis of the inclusion of Mary K. Barrow on U.S. provisional application nos. 60/189,443 and 60/196,273.

RESPONSE 8: - Holmes designates Mr. Thrasher to testify as to this category.

TOPIC 9: The reasons for and factual basis of the removal of Mary K. Barrow as an inventor from U.S. provisional application nos. 60/189,443 and 60/196,273.

RESPONSE 9: - Holmes designates Mr. Thrasher to testify as to this category.

TOPIC 10: The reasons for and factual basis of the addition of James DeCorbert, Lorens Hlava, and Mr. Thrasher as inventors for U.S. provisional application nos. 60/189,443 and 60/196,273.

RESPONSE 10: - Holmes designates Mr. Thrasher to testify as to this category.

TOPIC 11: The ownership of Holmes HTC in Dongguan, PRC.

RESPONSE 11: - Holmes designates Mr. Plaumann to testify as to this category.

TOPIC 12: The ownership of the Holmes Group, Inc.

RESPONSE 12: - Holmes designates Mr. Plaumann to testify as to this category.

TOPIC 13: The common ownership, if any, between Holmes HTC in Dongguan, PRC and the Holmes Group, Inc.

RESPONSE 13: - Holmes designates Mr. Plaumann to testify as to this category.

TOPIC 14: Sales and offers to sell between the Holmes Group, Inc. and Holmes HTC of products embodying any claim of the '483 and '855 patent, including the dates of the first such sale and offer to sell and including the identification of documents supporting these sales, offers to sell, and dates.

RESPONSE 14: - Holmes designates Mr. Plaumann to testify as to this category.

TOPIC 15: The involvement, if any, of Holmes HTC in the design of any electronic slow cookers including the identification of any documents related to such involvement.

RESPONSE 15: - Holmes designates Mr. Plaumann and Mr. Thrasher to testify as to this category.

TOPIC 16: The involvement, if any, of Holmes HTC in the design of any product embodying the alleged inventions claimed in the '483 and '855 patents including the identification of any documents related to such involvement.

RESPONSE 16: - Holmes designates Mr. Plaumann and Mr. Thrasher to testify as to this category.

TOPIC 17: The reasons for and factual basis of Holmes' decision, if any, whether to assert claims from its '483 or '855 patent against any third party or third party product including but not limited to:

- the Corningware SC-40PL slow cooker;
- the All-Clad programmable slow cooker; and
- the Innova, Inc. Ultrex digital slow cooker.

RESPONSE 17: - Holmes designates Mr. Plaumann to testify as to this category.

TOPIC 18: All licenses granted by Holmes, to any third party under the '483 or '855 patents or any agreement with any third party regarding the '483 or '855 patent including the dates such licenses or agreements were granted, the parties to the license or agreement, the products covered by the license or agreement, and the terms of the licenses or agreements, including but not limited to those licenses or agreements with the parties noted in topic 17 supra.

RESPONSE 18: - Holmes designates Mr. Plaumann to testify as to this category.

TOPIC 19: Knowledge or awareness of the Rival Model No. 3350/2 slow cooker within the Holmes Group, Inc., or its predecessors-in-interest of the Rival Crock Pot slow cookers, including the identity of individuals with such knowledge or awareness and the dates such individuals were employed by the Holmes Group, Inc. or its predecessors-in-interest.

RESPONSE 19: - Holmes designates Mr. Plaumann to testify as to this category.

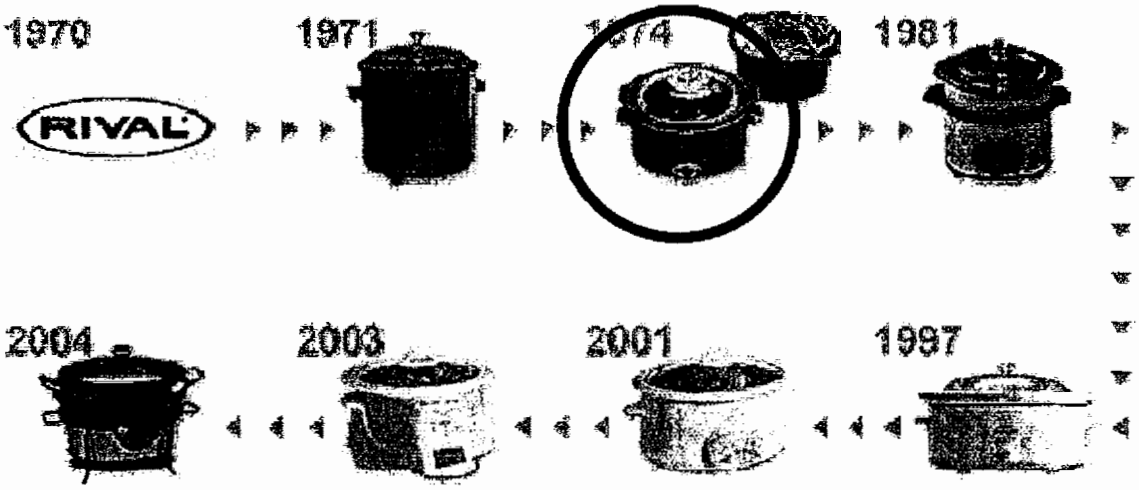
TOPIC 20: The reasons why the Rival Model No. 3350/2 slow cooker was not disclosed to the patent office during the prosecution of the patents-in-suit.

RESPONSE 20: - Holmes designates Mr. Thrasher to testify as to this category.

TOPIC 21: The design, construction, and operation of Rival Model No. 3350/2.

RESPONSE 21: - Holmes designates Mr. Thrasher to testify as to this category.

TOPIC 22: The model number, design, construction, manufacture and date of first sale of the slow cooker circled in red below and underneath the "1974" title as shown on the http://www.crockpot.com/aboutus.aspx website ("circled slow cooker") and the identification of all documents which show such design, construction, manufacture and date of first sale.



RESPONSE 22: - Holmes designates Mr. Plaumann to testify as to this category.

TOPIC 23: Knowledge or awareness of the circled slow cooker depicted in topic 22 supra within the Holmes Group, Inc. or its predecessors-in-interest of the Rival Crock Pot slow cookers, the identity of individuals with such knowledge or awareness, and the dates such individuals were employed by the Holmes Group, Inc. or its predecessors-in-interest and identification of all documents which identify such individuals and dates.

RESPONSE 23: - Holmes designates Mr. Plaumann to testify as to this category.

TOPIC 24: The design, construction, and operation of the circled slow cooker depicted in topic 22 supra.

RESPONSE 24: - Holmes designates Mr. Plaumann and Mr. Thrasher to testify as to this category.

TOPIC 25: Holmes contentions, if any, that there are secondary considerations of non-obviousness supporting the validity of the '483 and '855 patents including but not limited to any alleged commercial success of embodiments of the '483 and '855 patents; any alleged long felt but unmet need for the inventions embodied in the '483 and '855 patents; any alleged failure of others to find a solution for the problems solved by the '483 and '855 patents; and any alleged licensing of the '483 and '855 patents.

RESPONSE 25: - Holmes designates Mr. Plaumann to testify as to this category.

TOPIC 26: The reasons for and factual bases of Holmes' allegations that West Bend's alleged infringement of the '483 and '855 patents is willful.

RESPONSE 26: - Holmes designates Mr. Plaumann to testify as to this category.

TOPIC 27: The bases for Holmes' response to West Bend's Interrogatory No. 1 and the reasons for and factual bases of Holmes' allegations that West Bend infringes the '483 and '855 patents.

RESPONSE 27: - Objection - Premature. Holmes' Technical Expert will testify as to this category.

TOPIC 28: The reasons for and factual bases of Holmes filing this lawsuit against Focus Products Group, LLC.

RESPONSE 28: - Holmes designates Mr. Plaumann to testify as to this category.

TOPIC 29: The bases for and investigation into Holmes' claim of infringement against West Bend's slow cooker, including but not limited to any opinions from counsel regarding West Bend's alleged infringement of the '483 and '855 patents and the validity or invalidity of the 483 and '855 patents.

RESPONSE 29: - Holmes designates Mr. Plaumann to testify as to this category.

TOPIC 30: Holmes' first awareness of the West Bend slow cooker accused of infringing the '483 and '855 patents and the first time Holmes' concluded that West Bend's accused slow cooker infringed these patents.

RESPONSE 30: - Holmes designates Mr. Plaumann to testify as to this category.

TOPIC 31: Holmes' discussions with any third party regarding the West Bend slow cooker accused of infringing the '483 and '855 patent, including but not limited to OEM, WalMart, K-Mart, and Target.

RESPONSE 31: - Holmes designates Mr. Plaumann to testify as to this category.

TOPIC 32: Any and all efforts by Holmes to license the Patents-in-Suit or any other technology relating slow cooker appliances, including all offers related to licensing, all negotiations relating to licensing, and the terms of all executed license agreements. In this Notice, the phrase "Patents-in-Suit" shall mean the '483 patent '855 patent, including the applications and prosecution histories leading to those patents, as well as all patents claiming priority to or

relating to the Patents-in-Suit, including, without limitation, reexaminations, divisionals, continuations, continuations-in-part, foreign counterpart patents, and foreign counterpart patent applications whether pending or abandoned.

RESPONSE 32: - Holmes designates Mr. Plaumann to testify as to this category.

TOPIC 33: Royalties paid to, or by, Holmes pursuant to all licenses related to the Patents-in-Suit and all other licenses related to slow cooker appliances.

RESPONSE 33: - Holmes designates Mr. Plaumann to testify as to this category.

TOPIC 34: Holmes' claim for a reasonable royalty in this case, including all bases for Holmes' claim, any established royalty rate, and the factors set forth for ascertaining a reasonable royalty rate pursuant to *Georgia Pacific Corp. v. United States Plywood Corp,* 318 F. Supp. 1116 (S.D.N.Y. 1970).

RESPONSE 34: - Premature. Holmes Damages Expert will testify as to this category.

TOPIC 35: The unit and dollar volume of Holmes' sales of all embodiments of the patents-in-suit.

RESPONSE 35: - Holmes designates Mr. Plaumann to testify as to this category.

TOPIC 36: The gross and net profits earned by Holmes on its sales of all embodiments of the patents-in-suit, including the calculation of gross and net profits, sales prices, revenues, costs of goods sold, marginal costs, incremental costs, variable costs, standard costs, fixed costs, and variances.

RESPONSE 36: - Holmes designates Mr. Plaumann to testify as to this category.

TOPIC 37: The market for the sale of all embodiments of the Patents-in-Suit, including the identity of customers, competitors, competing products, sales prices, elasticity of supply and demand, the size of the market, and the absolute and relative market shares of competitors.

RESPONSE 37: - Holmes designates Mr. Plaumann to testify as to this category.

TOPIC 38: Holmes' claim that it is entitled to recover lost profits, including Holmes' definition of the relevant market, the availability of non-infringing substitute products in the relevant market, the amount of Holmes' claimed lost profits, and all bases for Holmes' claim for lost profits.

RESPONSE 38: - Holmes designates Mr. Plaumann to testify as to this category.

TOPIC 39: Holmes' ability and capacity to manufacture, market, and sell all of its embodiments of the patents-in-suit.

RESPONSE 39: - Holmes designates Mr. Plaumann to testify as to this category.

TOPIC 40: Identification and quantification (in units and dollars) of any convoyed or derivative sales and profits, arising from the sale of all embodiments of the Patents-in-Suit.

RESPONSE 40: - Holmes designates Mr. Plaumann to testify as to this category.

TOPIC 41: Holmes' marketing and promotion of all embodiments of the Patents-in-Suit, including Holmes' marketing of the features of all embodiments of the Patents-in-Suit such as advertising of those features and communications with customers regarding the alleged advantages or benefits of those features.

RESPONSE 41 - Objection - vague. To the extent understood, Holmes designates Mr. Plaumann to testify as to this category.

TOPIC 42: Identification of and the factual bases for all of the documents produced by Holmes relating to damages, including but not limited to, documents produced in response to Request for Production Nos. 4, 5, 10 through 14, 18, 20, 66 through 69, 72, and 74 through 82.

RESPONSE 42: - Holmes designates Mr. Plaumann to testify as to this category.

TOPIC 43: The factual bases for Holmes' responses to Defendants' Interrogatory Nos. 9 and 11.

RESPONSE 43: - Holmes designates Mr. Plaumann to testify as to this category.

TOPIC 44: The reasons and factual bases for Holmes' contention that the West Bend design patents are not valid pursuant to Sections 101, 102, 103, and 112 of the Patent Act as alleged in Paragraphs 8, 13, and 18 of Holmes' Counterclaims to West Bend's Counterclaims dated October 4, 2005 and as alleged in Holmes' response to West Bend Interrogatory No. 13. In this Notice, the phrase "West Bend design patents" shall mean United States Patent Nos. D 434,266 ("the '266 patent"), D 444,664 ("the '664 patent"), and D 444,993 ("the '993 patent").

RESPONSE 44: - Premature. Holmes' Design Expert will testify as to this category.

TOPIC 45: Holmes' reliance on opinion of counsel concerning West Bend's charge of infringement of the West Bend design patents.

RESPONSE 45: - Privileged - Holmes designates Mr. Plaumann to testify as to this category to the extent such testimony falls outside the attorney-client privilege.

TOPIC 46: Identification of all prior art that Holmes contends anticipates or renders obvious the West Bend design patents and an explanation of how such prior art anticipates or renders obvious the West Bend design patents.

RESPONSE 46: - Premature. Holmes' Design Expert will testify as to this category.

TOPIC 47: Holmes' contention regarding the level of ordinary skill in the art relevant to the West Bend design patents, including the factual bases for such contention.

RESPONSE 47: - Premature. Holmes' Design Expert will testify as to this category.

TOPIC 48: Holmes' contentions, if any, that there are no secondary considerations of non-obviousness supporting the validity of the West Bend design patents. Secondary considerations include the commercial success of embodiments of the West Bend design patents; long felt but unmet need for the inventions embodied in the West Bend design patents; the failure of others to find a solution for the problems solved by the West Bend design patents; and licensing of the West Bend design patents.

RESPONSE 48: - Premature. Holmes' Design Expert will testify as to this category.

TOPIC 49: Holmes' contention that its accused products, the Holmes Slow Cookers, do not infringe the West Bend design patents, including Holmes' response to West Bend Interrogatory No. 14. In this Notice, the phrase "Homes Slow Cookers" refers to certain slow cooker appliances, made, sold, or offered for sale by Holmes that are covered by any of the claims of the West Bend design patents, including but not limited to products bearing model numbers 3730 and 37351 as identified in West Bend's response to Holmes' Interrogatory No. 8.

RESPONSE 49: - Premature. Holmes' Design Expert will testify as to this category.

TOPIC 50: Holmes' knowledge of and awareness of the West Bend design patents, including the date and circumstances under which Holmes first learned of the West Bend design patents.

RESPONSE 50: - Holmes designates Mr. Plaumann to testify as to this category.

TOPIC 51: The gross and net profits earned by Holmes on its sales of the Holmes Slow Cookers, including the calculation of gross and net profits, sales prices, revenues, costs of goods sold, marginal costs, incremental costs, variable costs, standard costs, fixed costs, and variances.

RESPONSE 51: - Holmes designates Mr. Plaumann to testify as to this category.

TOPIC 52: The unit and dollar volume of Holmes' sales of the Holmes Slow Cookers.

RESPONSE 52: - Holmes designates Mr. Plaumann to testify as to this category.

TOPIC 53: Holmes' contentions regarding the amount of reasonable royalty damages owed to West Bend if it is determined that Holmes has infringed the West Bend design patents.

RESPONSE 53: - Premature. Holmes' Damages Expert will testify as to this category.

TOPIC 54: The market for the sale of the Holmes Slow Cookers, including the identity of customers, competitors, competing products, sales prices, elasticity of supply and demand, the size of the market, and the absolute and relative market shares of competitors.

RESPONSE 54: - Holmes designates Mr. Plaumann to testify as to this category.

TOPIC 55: Identification and quantification (in units and dollars) of any convoyed or derivative sales and profits arising from the sale of the Holmes Slow Cookers.

RESPONSE 55: - Holmes designates Mr. Plaumann to testify as to this category.

TOPIC 56: Holmes' marketing and promotion of the Holmes Slow Cookers, including Holmes' marketing of the features of the Holmes Slow Cookers such as advertising of those features and communications with customers regarding the alleged advantages or benefits of those features.

RESPONSE 56: - Holmes designates Mr. Plaumann to testify as to this category.

TOPIC 57: The reasons and factual bases for Holmes' contention that its alleged infringement of the West Bend design patents has not been willful.

RESPONSE 57: - Holmes designates Mr. Plaumann to testify as to this category.

TOPIC 58: Knowledge or awareness of the Rival Model No. 4350W rice cooker within the Holmes Group, Inc., or its predecessors-in-interest, including the identity of individuals with such knowledge or awareness and the dates such individuals were employed by the Holmes Group, Inc. or its predecessors-in-interest.

RESPONSE 58: - Holmes designates Mr. Plaumann to testify as to this category.

TOPIC 59: The date the Rival Model No. 4350W rice cooker was first sold or offered for sale in the United States, including the entity to which such sale or offer for sale was made.

RESPONSE 59: - Holmes designates Mr. Plaumann to testify as to this category.

TOPIC 60: The date the Rival Model No. 4350W rice cooker was first publicly displayed in the United States, including the entity to whom this display was made.

RESPONSE 60: - Holmes designates Mr. Plaumann to testify as to this category.

TOPIC 61: The identify of the individuals involved in the design of the Rival Model No. 4350W rice cooker and the role of each individual in this design.

RESPONSE 61: - Holmes designates Mr. Plaumann to testify as to this category.

TOPIC 62: The identity of the individuals involved in the marketing of the Rival Model No. 4350W rice cooker and the role of each individual in this marketing.

RESPONSE 62: - Holmes designates Mr. Plaumann to testify as to this category.

TOPIC 63: The identity of the individuals involved in the sales of the Rival Model No. 4350W rice cooker and the role of each individual in these sales.

RESPONSE 63: - Holmes designates Mr. Plaumann to testify as to this category.

TOPIC 64: Identification of any patents or patent applications directed to any aspect of the Rival Model No. 4350W rice cooker, including the date(s) such patent applications were filed and date of patent issuance.

RESPONSE 64: - Holmes designates Mr. Plaumann to testify as to this category.

TOPIC 65: The reasons why the Rival Model No. 4350W was not disclosed to the patent office during the prosecution of the '483 and '855 patents (collectively the "patents in suit").

RESPONSE 65: - Holmes designates Mr. Thrasher to testify as to this category.

TOPIC 66: The design, construction, and operation of the Rival Model No. 4350W rice cooker.

RESPONSE 66: - Holmes designates Mr. Thrasher to testify as to this category.

TOPIC 67: Knowledge or awareness of the Rival Model No. 4310 rice cooker within the Holmes Group, Inc., or its predecessors-in-interest, including the identity of individuals with such knowledge or awareness and the dates such individuals were employed by the Holmes Group, Inc. or its predecessors-in-interest.

RESPONSE 67: - Holmes designates Mr. Plaumann to testify as to this category.

TOPIC 68: The date the Rival Model No. 4310 rice cooker was first sold or offered for sale in the United States, including the entity to which such sale or offer for sale was made.

RESPONSE 68: - Holmes designates Mr. Plaumann to testify as to this category.

TOPIC 69: The date the Rival Model No. 4310 rice cooker was first publicly displayed in the United States, including the entity to whom this display was made.

RESPONSE 69: - Holmes designates Mr. Plaumann to testify as to this category.

TOPIC 70: The identify of the individuals involved in the design of the Rival Model No. 4310 rice cooker and the role of each individual in this design.

RESPONSE 70: - Holmes designates Mr. Thrasher to testify as to this category.

TOPIC 71: The identity of the individuals involved in the marketing of the Rival Model No. 4310 rice cooker and the role of each individual in this marketing.

RESPONSE 71: - Holmes designates Mr. Plaumann to testify as to this category.

TOPIC 72: The identity of the individuals involved in the sales of the Rival Model No. 4310 rice cooker and the role of each individual in these sales.

RESPONSE 72: - Holmes designates Mr. Plaumann to testify as to this category.

TOPIC 73: Identification of any patents or patent applications directed to any aspect of the Rival Model No. 4310 rice cooker, including the date(s) such patent applications were filed and date of patent issuance.

RESPONSE 73: - Holmes designates Mr. Thrasher to testify as to this category.

TOPIC 74: The reasons why the Rival Model No. 4310 was not disclosed to the patent office during the prosecution of the patents in suit.

RESPONSE 74: - Holmes designates Mr. Thrasher to testify as to this category.

TOPIC 75: The design, construction, and operation of the Rival Model No. 4310 rice cooker.

RESPONSE 75: - Holmes designates Mr. Thrasher to testify as to this category.

TOPIC 76: The identity of any other rice cookers sold by the Holmes Group, Inc., or its predecessors-in-interest, besides the Rival Model Nos. 4530W and 4310, that include a control housing mounted or affixed to, or projecting from, the outside of the appliance and were first publicly displayed, sold, or offered for sale prior to January 1, 2000.

RESPONSE 76: - Holmes designates Mr. Plaumann to testify as to this category.

TOPIC 77: The design, construction, and operation of the rice cookers identified in topic 76 supra.

RESPONSE 77: - Holmes designates Mr. Thrasher to testify as to this category.

TOPIC 77: The identity of all slow cookers, roasters, and steamers sold by the Holmes Group, Inc., or its predecessors-in-interest, that include a control housing mounted or affixed to, or projecting from, the outside of the appliance and were first publicly displayed, sold, or offered for sale prior to January 1, 2000.

RESPONSE 78: - Holmes designates Mr. Plaumann to testify as to this category.

TOPIC 79: The design, construction, and operation of the slow cookers, roasters, and steamers identified in topic 78 supra.

RESPONSE 79: - Holmes designates Mr. Thrasher to testify as to this category.

Dated: October 30, 2006

Respectfully submitted,

By: /s/ Alan M. Sack

HOFFMANN & BARON, LLP
6900 Jericho Turnpike
Suite 200
Telephone: 516-822-3550
Facsimile: 516-822-3582

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF MASSACHUSETTS

THE HOLMES GROUP, INC. Plaintiffs, v. WEST BEND HOUSEWARES, LLC and FOCUS PRODUCTS GROUP, LLC Defendants.	No. 05-CV-11367-WGY (Alexander, M.J.)

CERTIFICATE OF SERVICE

I, Alan M. Sack, hereby declare under penalty of perjury that on October 30, 2006, I caused to be served a true and correct copy of the following documents by email on the person listed below:

1. Holmes' Responses and Objections to Defendants' Amended First Rule 30(b)(6) Deposition Notice

Joseph T. Miotke, Esq.
Michael Best & Friedrich LLP
100 East Wisconsin Avenue
Suite 3300
Milwaukee, WI 53202-4108

/s/ Alan M. Sack
Alan M. Sack

JIPE IAP95 OCT 10 2006 PATENT & TRADEMARK OFFICE

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s)	:	DeCobert, et al.
Application No.	:	11/091,047
Filed	:	March 28, 2005
Title	:	PROGRAMMABLE SLOW-COOKER APPLIANCE
TC/A.U.	:	3742
Examiner	:	Joseph Pelham
Conf. No.	:	3586
Docket No.	:	717-675 CIP/CON
Dated	:	October 6, 2006

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

I hereby certify this correspondence is being deposited with the United States Postal Service as first class mail, postpaid in an envelope, addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450
on 10-6-2006
Signed: Anthony C Bennett

DECLARATION UNDER 37 C.F.R §1.132 OF BART J. PLAUMANN

Sir:

I, Bart J. Plaumann, declare as follows:

1. I am the Senior Vice President and General Manager Kitchen SBU of Jarden Consumer Solutions, the Owner of the above-identified patent application (hereinafter "Jarden").

DEPOSITION EXHIBIT 19

2. I have been in the position of Senior Vice President and General Manager for the last 4 years, and I have worked in the sales and marketing of slow-cookers since 2000.

3. My position includes overseeing the sales and marketing of electric slow-cookers including programmable slow-cookers which are the subject of the above referenced patent application.

4. Electric slow-cookers have been in the marketplace for at least 30 years. During this time the owner of the present application and it predecessors have been marketing slow-cookers under the trademarks Crock•Pot® and Rival®. In the past, as well as today, slow-cookers have been marketed with manual controls to set a cooking temperature such as low and high and off.

5. Slow-cookers are viewed as generally imprecise cooking devices that did not need any form of exacting control. Since the amount of cooking time is relatively long and the food is cooked at a relatively low temperature, there was not seen a need for including a timer on a slow-cooker. If the cooking was started in the morning, the food would be cooked and ready to serve at dinner time. The Crock•Pot® brand has been, and continues to be, marketed under the slogan, "cooks all day while the cook's away."

6. However, the inventors did recognize problems with the traditional prior art slow-cookers. Food if left too long in the slow-cooker could dry out or become overcooked. Also, users were showing a concern about leaving their slow-cookers on too long. The inventors recognized that there would be an advantage to having more control over the cooking process. Thus, there was a need in the marketplace for a programmable slow-cooker which more accurately controls a cooking time and temperature as well as provide a keep warm feature should the user not be available to attend to the appliance at the end of the set cooking time.

7. In 2000, Jarden's predecessor, The Holmes Group LLC., introduced the first programmable slow-cooker into the marketplace. The programmable slow-cooker gave the user the ability to set a cooking time and temperature. At the end of the cooking time, the power to the heating element is automatically reduced to a warm setting such that the food would be kept

at a proper serving temperature and prevent spoilage if the slow-cooker were left unattended. Since its introduction, the programmable slow-cooker with auto keep warm feature has been a tremendous commercial sales success. Since 2000, sales of programmable slow-cookers have steadily increased. Today, programmable slow-cookers account for over 40% of our slow-cooker sales, which sales exceed one hundred million dollars ($100,000,000).

8. Programmable slow-cookers are the same as traditional slow-cookers but for the programmable features which permit a user to set a cooking time and temperature and the temperature being automatically reduced at the end of the cook time to keep the food warm. The programmable slow-cooker is a premium product which costs more that the traditional slow-cooker. The success of the programmable slow-cooker in the marketplace is directly attributable the programmable features.

9. Once the programmable slow-cooker established itself as a success in the market, many competitors have attempted to copy it. These competitors each market a programmable slow-cooker that permits a user to set a time and temperature and also includes an automatic warm feature after the expiration of the set timed cooking cycle. Jarden has contacted nine (9) different competitors that have started marketing programmable slow-cookers, and is currently engaged in lawsuits with two (2) of those companies based on patents related to the pending application. The two pending lawsuits are:

The *Holmes Group v. West Bend Housewares, LLC et al.* 05-cv-11367 pending in the District of Massachusetts; and

The Holmes Group v. Euro-Pro Operating, LLC 05-cv-10504, pending in the District of Massachusetts.

10. Our competitors promote the automatic keep warm feature on their packaging, which demonstrates its significance in the market. Exhibits A and B. For example, Euro-Pro's product packaging prominently states, "Serve & Warm Automatically initiates the keep warm setting when cooking is complete..." Exhibit A. West Bend on its product packaging prominently states, "Electronic control automatically shifts to Keep Warm." Exhibit B.

11. The significance of a slow cooker having the programmable features including the automatic keep warm mode has been recognized by the industry. Eating Well magazine in its March 2006 issue praises the Rival® Smart-Pot programmable slow cooker by stating, "[b]ut perhaps our favorite feature is the automatic shift-to-warm setting, which allows your meal to cook for its predetermined time and then switch to a setting that keeps the food at a safe temperature until you're ready to eat." Exhibit C. The importance of Jarden's Smart-Pot's automatic shift to warm feature is also indicated on Eating Well's web site. Exhibit D. Jarden's programmable slow cooker and its automatic keep warm feature was also highlighted in a February 2006 issue of Woman's Day magazine. Exhibit E.

12. The significance of the automatic shift to a keep warm mode after a cooking time has ended has been further recognized by the media. The Akron Beacon Journal states:

> The improvements in the new generation of slow cookers are impressive: The most sophisticated programmable pots (about $70) can be set to cook in both hour and half-hour increments, plus they switch to a warm mode when the cooking time is up.

Exhibit F.

> The Miami Herald wrote:
> Several manufactures offer programmable slow cookers. When cooking time is up, the pots automatically shift into 'warm' mode-- the perfect solution to an eight-hour recipe and a 10-hour workday.

Exhibit G.

The media has clearly recognized the importance and benefits of the programmable slow cooker that automatically shifts to a keep warm mode at the end of a cooking time.

I hereby declare that all statement made herein of my own knowledge are true and that all statements made on information and belief are believed to be true, that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment or both under Section 1001 of Title 18 of the United States Code, and that such willful statements may jeopardize the validity of the application or any patent issued thereon.

Respectfully submitted,

Dated: 10/6/06

Bart J. Plaumann

EXHIBIT 2

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF MASSACHUSETTS

THE HOLMES GROUP, INC.,	:	
	:	
Plaintiff,	:	Civil Action No. 05-CV-11367 WGY
v.	:	(Alexander, M.J.)
	:	
WEST BEND HOUSEWARES, LLC and FOCUS PRODUCTS GROUP, L.L.C.,	:	
	:	
Defendants.	:	

DECLARATION OF PROFESSOR RONDA J. ROBOTHAM IN SUPPORT OF PLAINTIFF`S RESPONSE TO DEFENDANTS` MOTION FOR PARTIAL SUMMARY JUDGMENT ON INVALIDITY OF U.S. PATENT NOS. 6,573,483 AND 6,740,855

I, Professor Ronda J. Robotham, MAT, make the this declaration based upon my personal knowledge, experience and expertise, and declare as follows:

1. I have been retained by THE HOLMES GROUP, INC. (“Holmes”) as a Culinary Expert in this case. My qualifications as an expert and my educational and professional background are set forth in my curriculum vitae, which was attached as Exhibit A.

2. I am an Assistant Professor of Culinary Arts at Johnson & Wales University, and have been teaching in the Culinary Arts for 11 years with a total of 16 years in the foodservice profession.

3. I am a participating member of Women Chefs and Restaurateurs, and a past member of the American Culinary Federation and the International Foodservice Executives Association.

4. I earned a Master of Arts degree in Teaching Vocational Secondary Education (in the Culinary Arts) from the Alan Shawn Feinstein Graduate School of Johnson & Wales University in 2002; a Bachelor of Science in Foodservice Management from Johnson & Wales College in 1983; and, an Associate in Science in Culinary Art from Johnson & Wales College in 1981.

5. I began teaching culinary arts at Johnson & Wales College in 1983 and left in 1985 to serve in the United States Navy. I returned to teaching culinary arts at Johnson & Wales University in 1997 as an instructor (Johnson & Wales College had since then become a University). I was then promoted to the rank of Assistant Professor in 2002.

6. Some of my current responsibilities as an Assistant Professor at Johnson & Wales University include; development of curriculum, lectures, demonstrations and assessment of student skills as related to cooking methods discussed.

7. My areas of expertise are in teaching techniques of stewing, braising, stocks, sauces and soups.

8. Aside from teaching the Culinary Arts, I have worked in various foodservice operations as a cook and then chef in small independent operations, such as the Bee & Thistle Inn and in large scale establishments, such as the Lake Buena Vista Club in Walt Disney World.

9. I have owned and used a Rival slow cooker, Model 3120 for approximately 10 years, and find that for achieving the results of tender, flavorful products, combined with ordinarily one step use, it is extremely efficient.

10. I have reviewed Dr. Feinberg's Declaration in support of West Bend's Summary Judgment Motion on Invalidity of U.S. Patent Nos. 6,573,483 and 6,740,855 and disagree with his Declaration for the following reasons:

11. I believe that someone skilled in the technique of slow cooking would not have combined the patents and publications that Dr. Feinberg has used in his report as they differ, sometimes greatly, from the slow cooking process and would negatively affect the outcome of the items prepared.

12. The principle of slow cooking is generally accepted as the cooking process of applying low heat to a product for an extended period of time in order to render the product tender and flavorful. This low heat application is carried out in a moist environment so that in the case of certain proteins, the collagen present will effectively convert to gelatin yielding a succulent product.

13. The extended cooking time at a low heat then allows the proteins to relax enough to redistribute the cooking liquid into the now loosened fibers resulting in the desired outcome. In considering doneness of a slow cooked product, the temperature and texture are of prime importance. Even though the slow cooking process is a relatively gentle cooking method, there is still the possibility of overcooking. The result is most often a tender but very dry product.

14. I think it is important to note that U.S. Patents 6,573,483 and 6,740,855 ("the '483 and '855 Patents") have the capability to be programmed to automatically switch from a cooking mode to a "keep warm" mode which ensures the user of the desired results by automatically switching to a lower temperature. The temperature still remains high enough to prohibit harmful bacterial growth, but not so high as to further dry proteins.

15. With respect to U.S. Patent No. 4,307,287 to Weiss, I disagree with the selection of this patent as it differs from the '483 and '855 Patents. The Weiss patent describes a cooking appliance which has a cooking range that exceeds that recommended in the slow cooking process. It can achieve temperatures that are sufficient for a deep frying technique. Weiss

describes use in connection which temperature ranges from simmering up to175°C (Col. 4, ll. 43-46), which converts to approximately 347°F, a setting suitable for deep frying capabilities. The heating capabilities of the Weiss Patent also are described for potential browning of proteins prior to the low heat process.

16. In the background of the Weiss patent, col. 1, ll. 23-28, the statement that the items would cook correctly without supervision is a concern when working with temperatures reached in that method. In col. 1, ll. 56-61, it speaks of an initial cooking phase which causes accelerated heating allowing browning prior to prolonged cooking. While this is sometimes performed in braising or stewing, it is an additional step which differs from the '483 and '855 Patents where a relatively low heat is applied to the food product.

17. While accelerated heating to high temperatures that sear the food is accepted as a norm for many braised and stewed dishes, this process moves away from the simple slow cooker and the low conductive properties of the ceramic cooking vessel. I find no temperature range listed in the Weiss Patent to address "hot" which could also be a concern.

18. Based on the interpretation of claim 13 of U.S. Patent No. 6,573,483 or claim 20 of U.S. Patent No. 6,740,855 the cooking process of a slow cooker is designed to use the benefits of a simple process using relatively low heat for a relatively long time. Accordingly, a person seeking optimal temperature range for slow cooking would not look to a device which lists the temperatures identified nor look toward the Weiss '287 Patent to serve this purpose.

19. In reference to paragraph 11 of Dr. Feinberg's Declaration, he stated that the material for the cooking vessel in the Weiss patent is not identified. In paragraph 12, he states that the Rival Crock Pot discloses the use of a ceramic cooking unit. One skilled in the art of slow cooking would be motivated to use ceramic because of its, relatively ineffective conductive

properties. I feel that based on the information presented in the Weiss patent, the cooking device appears to be a metallic cooking vessel sitting on an electronic heating element, similar to an electric griddle, and that could also be a negative factor when considering slow cookers.

20. I also disagree with Dr. Feinberg's assertion regarding the motivation of combining Weiss with U.S. Patent No. 4,817,510 to Kowalics, this does not seem appropriate. The Kowalics patent is for an apparatus used to heat fluids. The device's documentation indicates that it reaches temperatures up to boiling (212°F) which is inappropriate for a slow cooker. It is designed to heat a product to the boiling temperature (212°F), which would cause available liquid to evaporate and be drawn from proteins, rendering them dry and potentially tough.

21. Likewise, its listed temperature for simmering (210°F), shown in Fig. 2 of the Kowalics patent, is high for slow cooking. The apparent Kowalics design is also limiting in that it would not seem suited to preparing solid food items. The Kowalics design, by introducing heated air into the cooking chamber as a means of mixing the contents, would not be appropriate in slow cooking. In the preparation of solid items, such as a "Pot Roast," the stirring capacity seems as though it would be ineffective and possibly not practical depending on the size of the product.

22. Dr. Feinberg also relies on U.S. Patent No. 4,345,145 to Norwood, which is directed to a programmable toaster oven. A toaster oven is a device that typically cooks, bakes and broils with dry heat, unlike the moist environment of a slow cooker. In addition, toaster ovens typically cook, bake and broil at temperatures of up to 500°F, which are much higher than are used in slow cookers. Accordingly, one would not look at toaster ovens for the design of slow cookers.

23. Dr. Feinberg also relies on U.S. Patent No. 6,191,393 to Park, which is directed to a double walled metallic roaster filled with synthetic oil, a device that is very different from a slow cooker. Roasters typically operate at temperatures between about 300-500°F and cook in a very hot, dry environment over relatively short periods of time, typically 1-3 hours. These conditions and temperatures are not compatible with slow cooking. Accordingly, one would not look to roasters in contemplating slow cooker design.

24. Having reviewed the Dr. Feinberg Declaration and the references relied upon; I disagree with the combinations of patents selected. I also disagree with his conclusion that the claims of the '483 and '855 Patents are invalid as being anticipated or obvious in view of the prior art considered.

25. I believe that one familiar with slow cooking devices and techniques seeking to make improvements in such devices would not use these patents cited by Dr. Feinberg in combination with a traditional slow cooker, as their mode of operation greatly differ from the slow cooking principles and cooking techniques.

I declare under penalty of perjury that the foregoing is true and correct and, as to matters stated to be alleged on information and belief, I believe them to be true.

Executed this 20th day of December, 2006

Ronda J. Robotham, MAT

EXHIBIT A

CURRICULUM VITAE

Ronda J. Robotham

528 Smithfield Road, Apt. # 206
North Providence, Rhode Island 02904
Phone (h) 401-354-8635

Email rrobotham@jwu.edu
Phone (w) 401-598-2821
Fax 401-598-1856

EDUCATION

May 2005, Emergency Care I and II, Bristol Community College, *4.0 GPA*
June 2002, MAT, Johnson & Wales University, Providence, Rhode Island, *4.0 GPA*
June 1983, BS Food Service Management, *Magna Cum Laude*, Johnson & Wales University
June 1981, AS Culinary Arts, *Summa Cum Laude,* Johnson & Wales University

AWARDS

2004, Teacher of the Year
2002, Outstanding Service Award

WORK EXPERIENCE

1997-Present, Assistant Professor, Johnson & Wales University, Providence, Rhode Island

Classes taught:	Fundamentals of Foodservice Production	3 years
	New World Cuisine	4 years
	Nutrition and Sensory Analysis	2 years
	Stocks, Sauces, & Soups	10 years
	Traditional European Cuisine	4 years

Responsible for the development of curriculum, lectures, and demonstrations for undergraduate classes. Primarily teaching the fundamentals of various culinary techniques such as braising, stewing, frying, grilling, roasting, and stock, sauce and soup techniques. Class size is usually 20 students.

1989-1996, Front Desk Supervisor– Accounts Receivable Supervisor, Ritz-Carlton, Naples, Florida

1985-2002, Boatswain Mate Chief, United States Navy, Navy Reserve

Served in United States Navy on active duty and with the Reserve component in various capacities:

NSSF HQ Det 101, New London, Connecticut
Inshore Boat Unit Two Two, New Haven, Connecticut
Naval Weapons Station, Charleston, South Carolina
Naval Control of Shipping, New Haven, Connecticut
Naval Station Roosevelt Roads, Ceiba, Puerto Rico

1977-1980, Chef, Bee & Thistle Inn, Old Lyme, Connecticut

Responsible for menu planning, meal preparation, sanitation and training of kitchen staff.

VOLUNTEER WORK

1998-2004, Operation Stand-Down, Cumberland, Rhode Island
Prepared and served meals to homeless veterans
1999-2004 Various, Operation Front Line, Various, Rhode Island
Working with children, teaching them to make healthy foods for themselves and their families

MEMBERSHIPS/CLUBS

1999- Present, Women Chefs and Restaurateurs
1999- Present, Judge for secondary and post-secondary Skills USA/VICA competition
2005 - Present, Co-advisor for the Club of Culinary Excellence
1999- 2006, Naval Enlisted Reserve Association

ARTICLES

"The Kitchen Knives Every Cook Needs." Bottom Line Personal, 27 (2006): 12.
Chappell, Mary Margaret and Kanner, Ellen. "Chop Chop or Look Sharp." Vegetarian Times,
Interviewed January 2006, running postponed.

LICENSES AND CERTIFICATES

EMT-B, Rhode Island; #13294 exp. 9/30/2009
EMT-B, Massachusetts; #869677 exp. 4/1/2008
NREMT-B; #B1669198 exp. 3/31/2008
Food Service Safety Manager, Rhode Island; #FMC06582 exp. 1/31/2007

EXHIBIT 3

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF MASSACHUSETTS

THE HOLMES GROUP, INC.,	:	
	:	
Plaintiff,	:	Civil Action No. 05-CV-11367 WGY
v.	:	(Alexander, M.J.)
	:	
WEST BEND HOUSEWARES, LLC and FOCUS PRODUCTS GROUP, L.L.C.,	:	
	:	
Defendants.	:	

DECLARATION OF PROFESSOR DAVID L. TRUMPER
IN SUPPORT OF PLAINTIFF`S RESPONSE TO DEFENDANTS`
MOTION FOR PARTIAL SUMMARY JUDGMENT
ON INVALIDITY OF U.S. PATENT NOS. 6,573,483 AND 6,740,855

I, Professor David L. Trumper, Ph.D., make the this declaration based upon my personal knowledge, experience and expertise, and declare as follows:

1. I earned a Ph.D. degree in Electrical Engineering Computer Science from the Massachusetts Institute of Technology ("MIT") in Cambridge, Massachusetts in 1990, a Masters of Science Degree in Electrical Engineering Computer Science from MIT in 1984, and a Bachelor of Science in Electrical Engineering Computer Science from MIT in 1980.

2. I am a full Professor at MIT's Department of Mechanical Engineering, and have been employed by MIT's Department of Mechanical Engineering from September 1993 to the present. I was appointed a full Professor in July 2004. Prior to my appointment as a full Professor, I was an Associate Professor with tenure from July 2000 through June 2004; a Rockwell International Career Development Associate Professor from March 1998 through June

2000 and Assistant Professor from March 1995 through June 1996; and, an Assistant Professor from September 1993 through March 1995.

3. I was an adjunct Professor of Electrical Engineering at the University of North Carolina-Charlotte from 1993 through 1998; and an Assistant Professor of Electrical Engineering prior to my appointment at MIT from 1990 through 1993, also at the University of North Carolina, Charlotte.

4. Prior to my faculty appointments, I held a position of Engineer at the Waters Division of Millipore Corporation from 1986 through 1987; and served as an Engineer at Hewlett-Packard Co. from 1980 to 1982. I was a student employee at Teradyne, Inc. in 1979 while completing my undergraduate studies at MIT.

5. I have served on professional and academic associations and was the President of the American Society of Precision Engineers (ASPE) from 2005-2006; Vice President from 2004-2005; and a member of the ASPE Board of Directors from 2004 to the present. I have also been a Director-at-Large for ASPE from 1995-1998; a Guest Editor for the *Precision Engineering* Journal from 1997-1998; an Associate Editor at *Precision Engineering* from 1998-present. I am also a member of the American Society of Mechanical Engineers (ASME), the Institute of Electrical and Electronic Engineers (IEEE), and the International Academy of Production Engineering (CIRP).

6. I have received numerous awards and honors including the Keenan Award for Innovation in Undergraduate Education 2006; Spira Award for Excellence in Teaching in 2002; 3M Innovation Award in 2001; ASME Leonardo da Vinci Award in 1999; Spira Award for Excellence in Teaching in 1998; Rockwell International Career Development Chair in 1995-

1998; NSF Presidential Young Investigator in 1991-1996; IBM Graduate Fellowship in 1984-1986; and the Hewlett-Packard Master's Fellowship in 1982.

7. Currently, I have eleven (11) issued United States patents, and four (4) pending United States patent applications. I have authored or coauthored twenty-three (23) articles published in refereed journals. I have also published sixty-nine (69) papers in proceedings of refereed conferences.

8. I have served as a professional consultant to a number of companies and law firms.

9. I have conducted research, lectured extensively and taught courses at MIT from 1993 to the present on the subjects of Analysis and Design of Digital Control Systems; Mechatronics; Dynamics and Vibration; Modeling Dynamics and Control; Designing Smart Machines; Systems Modeling And Control.

10. I have studied, programmed, used, and taught courses involving computer control of machines and systems. These include controllers using microprocessors, microcontrollers, and digital signal processors. My research and consulting work centers on the design of precision motion control systems, with a significant component of work focused on the associated computer-based controllers and control algorithms. The topics of my research and teaching also include the sensors, actuators, analog-, and digital-electronics associated with computer-based controllers. Accordingly, I am considered an expert in the field of the design of computer controlled systems and machines, including those using microprocessors and microcontrollers.

11. A copy of my *Curriculum Vitae* has been filed with the Court and was attached as Appendix A to my October 12, 2006 Declaration.

12. In preparing this Declaration I have considered the patents-in-suit (U.S. Patent

No. 6,573,483 (the `483 patent) and U.S. Patent No. 6,740,855 (the `855 patent)), the prosecution histories of the patents-in-suit, including the prior art cited on the face of the patents-in-suit, and the Declaration of Dr. Feinberg on Invalidity of the '483 and '855 Patents, and references cited therein. I have read and analyzed Defendants' Statement of Material Facts as to Which There Are No Genuine Issues of Dispute and Which Entitle Defendants to Summary Judgment of Invalidity. I have also read and rely upon the Declaration of Holmes' culinary expert Prof. Robotham, which is incorporated by reference.

13. Upon my reading of the transcript of the Court's *Markman Hearing* conducted on September 27, 2006, it is my understanding that certain terms of Claim 13 of the '483 Patent have been construed by the Court. In addition, it is my understanding that similar corresponding terms of Claim 20 of the '855 Patent have been construed by the Court, as well.

14. I have reviewed the Declaration prepared by Dr. Feinberg in Support of Defendant's Motion for Partial Summary Judgment on Invalidity of U.S. Patent Nos. 6,573,483 and 6,740,855, and disagree with his Declaration for at least the following reasons:

15. Dr. Feinberg's invalidity analysis is flawed because it is based upon an incorrect interpretation of the terms "programmable controller" (`483 patent, claim 13), and "programmable circuit" (`855 patent, claim 20). The requirement that these terms include a controller or circuit which is programmable is inherent in the language of the terms themselves, and made clear in the specification and prosecution histories of the `483 and `855 patents. Dr. Feinberg does not apply the requirement for programmability in his invalidity analysis, and thus he reaches the wrong conclusions.

16. The programmable controller and/or programmable circuit as construed by the Court in the claims of the patents-in-suit:

a) is programmable, and

b) controls time and temperature.

Feature a) requires that the programmable circuit encompasses a microprocessor, microcontroller, or equivalent programmed computational capability in an integrated circuit. Feature b) requires that both time and temperature be measured and that control action be taken on the basis of these measurements.

17. The a) programmability and b) control requirements are clearly spelled out in the patent specifications and specified in the claims in suit. For example:

> The heating element 24 (not shown) may be powered on and off as necessary to supply heat at a maintained temperature to the cooking unit 39 and the heating chamber via a programmable control 200. (`483 patent, Col. 3, ll. 8-12)

and

> The circuit board 254 mounts circuitry and logic allowing the user of the appliance 10 to electronically control and program cooking cycles and temperature. (`483 patent, Col. 4, ll. 48-50)

18. This analysis is also consistent with the Court's Markman interpretation of the claim language. Claim 13 of the '483 Patent recites "**A method of using *a programmable slow-cooker appliance***." This element appears in Claim 13, lines 1-2 of the '483 Patent. The Court construed the italicized portion of this claim element as "*a cooking device designed for cooking food at a constant relatively low cooking temperature for a relatively long period of time [being], being programmable to operate in a variety of different cooking modes and cooking times.*" (*See*, the Court's *Markman* Hearing Transcript @ page 3, lines 7-12.)

19. Dr. Feinberg also has an incorrect understanding of feedback control as it applies to the patents-in-suit and the cited prior art references. The terms "maintain temperature" and "control… temperature" refer to a feedback control process which is clearly described in the patent specification:

> "The temperature of the cooking appliance is measured using a thermistor 310, which is connected externally of the circuit board to the underside of the bottom of the heating chamber." (`483 patent, Col. 5, ll. 19-22)

and

> "In all modes, the temperature is read periodically by the thermistor or other temperature element and relayed to the controller. The reading is checked at 4-second intervals. If the temperature is above or equal to the set point, power is removed. If it is below the set point, power is applied to the heating element 32. Of course, the circuitry can be modified as desired to achieve various program methods and modes." ('483 patent, Col. 7, ll. 3-9)

20. As specified above, temperature measurement and feedback control of temperature by application of power to the heating element is used in all modes of the invention. Accordingly, the control of temperature in the patents-in-suit requires measurement of temperature and a feedback control action on the basis of this measurement.

21. In addition, the patent specifies that temperature measurement and thus the associated control action take place on a periodic interval (for example, 4 seconds). Such sampled control is characteristic of microprocessor systems, and confirms that the controller of the invention utilizes a microprocessor, microcontroller, or equivalent. Accordingly, temperature sensor data are gathered in the programmable slow-cooker of the patents-in-suit. (`483 patent, Col. 7, ll. 3-9). This data is gathered at a fixed time interval (e.g., 4 seconds) to facilitate real-time control (maintaining) of a user-programmed temperature and cooking time.

22. The programmable circuit of the patents-in-suit uses closed-loop feedback to control the cooking temperature. The microprocessor controller of the programmable circuit

achieves this function by measuring the temperature with a thermistor and then applying power to the heating element on the basis of this feedback.

23. By contrast, in the Weiss `287 patent, Figures 6 and 7 provide an open-loop control where the heating element is driven with a fixed on/off timer-based pattern. This is confirmed by the observation that the "controller" 22 of Weiss (shown in Fig. 8) has no measurement input for a temperature sensor. It is an open-loop timer which sets the on/off pattern applied to the heating element without regard for the resulting temperature. The "controller" 22 of Weiss is open-loop; it is unable to exert control over the temperature of the cooking process, and thus is unable to control the quality of the cooking result. The responsibility for a correct cooking temperature and cooking result is left to the user of the device shown in Weiss. This is quite distinct from the closed-loop control of the patents-in-suit, in which temperature is maintained via feedback control.

24. Dr. Feinberg makes a significant error by failing to distinguish between open loop and closed loop control. As near as I can understand, he views anything which affects temperature as being a form of programmable temperature control. This is simply incorrect in the context of the patents-in-suit.

25. Dr. Feinberg also makes a significant error in that he seems to view anything which can be set as a programming input to a programmable controller. For example, he views an oven with a manually-settable thermostat and mechanical timer to turn the oven on and off as a programmable controller within the scope of the claims in suit (*Feinberg dep.* 247:8-22). In this incorrect view, the knobs of the thermostat and timer are programmable inputs. However, such oven thermostats and mechanical timers have been available on the market since the early part of the last century. They cannot be considered a programmable controller within the context

of the patents-in-suit. Dr. Feinberg asserts an unreasonable position, which is unsupportable in light of the specifications of the patents-in-suit and their file histories.

26. Dr. Feinberg also takes inconsistent positions in two of the pending motions. In arguing non-infringement in his Declaration (signed on July 18th) filed on July 19, 2006, he indicates that the digital logic and circuitry of the accused West Bend device is not programmable. In Photo 9 of this declaration, he identifies the microprocessor of the West Bend device as the "programmable controller" and says that it is "the only component… that is programmed to operate the heating element in accordance with the selected cooking parameters (i.e., cooking time and temperature) and to automatically lower cooking temperature to a warm mode after the selected time elapses." Feinberg Non-Infringement Decl. at Para. 13. This is far different than the broad position taken in his subject declaration and in his deposition; for example under his interpretation, the interface logic and circuits in West Bend's first printed circuit board could seemingly constitute a programmable controller in their own right.

27. This inconsistent analysis may be based upon Dr. Feinberg's lack of education or current expertise with regard to microprocessor based circuits. None of Dr. Feinberg's educational and teaching background relates to microprocessor control systems (*Feinberg dep.* 14:5 - 15:6). Dr. Feinberg's sole teaching and research background with regard to computer control appears to be more than 20 years old. In view of his lack of background in microprocessor controlled systems, Dr. Feinberg has apparently made an incorrect interpretation of the Court's Markman interpretation of the claims at issue.

28. In addition, Dr. Feinberg takes an unrealistic position on the background of one of ordinary skill in the art. In my view, one of ordinary skill in the art which pertains to the patents-in-suit as having a Bachelors degree in engineering, and with one or two years of experience

designing electronic control circuits for slow-cookers, and who is familiar with the cooking process requirements of slow-cookers.

29. Dr. Feinberg believes that one of ordinary skill in the art does not even need an engineering degree. (*See*, *Feinberg dep.*186:9-187:8) Alternatively, Dr. Feinberg claims that an electrical engineer with no experience in the design or manufacture of cooking devices could be considered as one of ordinary skill in the art (*See, Feinberg dep.*187:9-19).

30. Given the inconsistencies and significant inaccuracies in his declarations and deposition, I do not believe that Dr. Feinberg has sufficient background to qualify as an expert in the fields relevant to the patents-in-suit. Based upon a review of Dr. Feinberg's resume, his reports, his lack of publications (no journal publications for more than 20 years), and his deposition transcript, I do not see evidence that Dr. Feinberg is an expert in the fields to which he is testifying. Furthermore, I do not believe he even qualifies as one of ordinary skill in the art of this case. Dr. Feinberg's education precedes modern microprocessor control, and he clearly has no clear idea of what constitutes a programmable controller. Neither does Dr. Feinberg make any distinction between closed-loop and open-loop control. Ignorance of this distinction is an overwhelming fault which renders his opinions flawed and unreliable.

31. In the following sections I respond to Dr. Feinberg's analysis of the references cited in his Declaration, and indicate my view that the patents are valid despite the flawed arguments set forth by Dr. Feinberg.

Weiss, "Electric Cooking Appliance", U.S. Patent No. 4,307,287

32. The focus of this patent is a high-temperature cooker with a fixed timer-based controller. The unit has an initial cooking phase which starts automatically, and during which "the vessel 12 rapidly reaches a high temperature which, for example, enables the user suitably

to brown pieces of meat in fat…" As I understand from Prof. Robotham's Declaration, such high temperatures are not consistent with the processes required in a slow-cooker. The high-temperature cooker of Weiss is clearly not a slow-cooker, because in the initial high-power cooking phase it rapidly raises the temperature to a value only limited to 347 °F when the safety shutoff thermostat intervenes. Further, during normal cooking, nothing limits the temperature to values consistent with slow-cooking.

33. The Weiss patent shows a metal cooking vessel in contact with a bottom-mounted heating element. (Although the body of the Weiss patent does not explicitly state the cooking vessel material, it is clear from mechanical and thermal considerations that the vessel is made of metal. For example, examining the cross-sectional view of Figure 2 of Weiss, the cooking vessel has thin walls which could not be made of a ceramic material; only a metal vessel could have this configuration. The attachment of the handles confirms this; a ceramic vessel could not tolerate the associated mechanical stresses. Finally, the high thermal gradients resulting from direct contact with the bottom-mounted heating elements would crack a ceramic vessel with such thin walls.) The high thermal conductivity of the configuration of Weiss creates direct heat transfer and rapid temperature rise of the items being cooked. This high thermal conductivity also facilitates browning, which process is one of the key features of this device. The cited high cooking temperatures of up to 347 °F are clearly far above the relatively low temperatures typical of a slow-cooker. Such high-temperature cooking processes and configuration do not correspond with and teach against the use of a ceramic cooking unit with less direct heat transfer and relatively low cooking temperatures characteristic of a slow-cooker.

34. The Weiss patent does not show a programmable controller or programmable circuit. The control circuit 22 is just a simple timer circuit. Nothing in the patent suggests that it

is programmable. The knobs 24, 26, 28 simply set the duration of timing signals emitted by the control circuit. Such a manually settable control circuit clearly cannot constitute a programmable controller. Further, the Weiss "controller" 22 has no input for temperature measurement, and thus cannot control temperature. It also has no input for measuring power either, and thus cannot control power. It is an open-loop device. It is an incorrect interpretation to suggest that the fixed on/off timer signals somehow control temperature; there is no way to determine what temperature will result in the Weiss device. In fact by using such a simple fixed timer circuit, this reference teaches away from the concept of using a programmable controller. Dr. Feinberg's analysis of the Weiss patent incorrectly refers to the control circuit 22 as a programmable controller, when control circuit 22 clearly does not include the features of a programmable controller.

35. Dr. Feinberg's Declaration in Support of Defendant's Motion for Summary Judgement, paragraph 5 states: "U.S. Patent No. 4,307,287 to Weiss' ("Weiss") selection of cooking temperature and method of maintaintaining [sic] the cooking temperature through application of adjustable power to the heating element is the same method described in both the '483 and '855 patents, in which power is supplied to the heating element to select and maintain the cooking temperature. ('483 patent, col. 3, ll. 9-12 and col. 6, ll. 1-12.)"

36. This paragraph of Dr. Feinberg's declaration has numerous factual misrepresentations. The Weiss patent does not discloses a means for selecting cooking temperature. Additionally, Weiss does not disclose means to maintain (control) temperature. Accordingly, since Weiss does not disclose cooking temperature selection means nor temperature control means, Weiss cannot describe the same methods as claimed in the patents-in-suit. The adjustable power in Weiss is set via the thumbwheels by the user; in this context the

user functions as the temperature controller who must act to adjust the power to a suitable level.

37. Considering the Weiss patent I see no motivation to combine the teachings of this high-temperature cooker with a prior art slow-cooker or any of the other references to yield a programmable slow-cooker as described in claim 13 of the `483 patent, or claim 20 of the `855 patent, or the asserted dependent claims. One of ordinary skill would not look to the Weiss patent for adapting to slow-cooker design.

38. Accordingly, Dr. Feinberg's analysis of the Weiss patent with respect to invalidity of the patents-in-suit is incorrect for at least the reasons cited above.

Kowalics, "Cooking Apparatus for Fluid Container," U.S. Patent No. 4,817,510

39. The focus of the Kowalics patent is a cooking apparatus for cooking soup and similar food products, with an air-pumped mixing system. As I understand from Prof. Robotham's Declaration, the heating of the food items to the relatively high temperatures cited in the patent renders this device unsuitable for slow-cooking. As well, automatic stirring via heated air is not consistent with the slow-cooker application.

40. The Kowalics patent shows a metal cooking vessel in contact with a bottom-mounted heating unit which is intended to create direct heat transfer facilitated by the air-driven stirring action. This does not correspond with and teaches against the use of a ceramic cooking unit, relatively low cooking temperatures, and less direct heat transfer characteristic of a slow-cooker.

41. The temperature and timing controls shown in the Kowalics patent are based upon relays and hard-wired temperature controllers, or upon hard-wired electronic temperature controls and fixed timing, switching, and logic circuits (Col. 5, l. 57 – Col. 12, l. 46). Such fixed electronic control and timing circuits are clearly not a programmable controller or circuit as

defined in the claims at issue. Nothing in the patent suggests that these circuits are programmable. In fact, by using such simple fixed circuitry, this reference teaches away from the concept of using a programmable controller. Dr. Feinberg's analysis of the Kowalics patent incorrectly refers to the fixed electronic temperature control and timers as a programmable controller.

42. Considering the Kowalics patent I see no motivation to combine the teachings of this soup cooker with a prior art slow-cooker or any of the other cited references to yield a programmable slow-cooker as described in claim 13 of the `483 patent, or claim 20 of the `855 patent, or the asserted dependent claims. One of ordinary skill would not look to the Kowalics patent for adapting to slow-cooker design.

43. Dr. Feinberg's analysis of the Kowalics patent with respect to invalidity of the patents-in-suit is incorrect for at least the reasons cited above.

44. The Defendant's Statement Of Material Facts As To Which There Are No Genuine Issues Of Dispute And Which Entitle Defendants To Summary Judgment Of Invalidity, of December 1, 2006 is also flawed by significant errors. These are enumerated below with reference to paragraph numbers. At least the following are errors of fact in this document:

Paragraph 5 states: "Weiss teaches a slow cooker in which the operator, using a "control circuit," sets "the average power [temperature]" and "duration [time]" of the cooking phase. *Id.* at col. 1, ll. 12-22. After the normal cooking phase selected by the user, the control circuit automatically proceeds to "phase M, at reduced power [temperature], in which the food is kept hot."

- Weiss does not disclose a slow-cooker. The control circuit only sets average power. It does not set temperature.

Paragraph 12 states: "Weiss discloses such a programmable slow cooker that cooks food at a constant, relatively low cooking temperature for a relatively long period of time. Ex. A, col. 1, ll. 23-28 and col. 4, ll. 47-54.**"**

- Weiss does not support this statement. Weiss is not programmable. Weiss is not a slow cooker. It does not maintain constant, relatively low cooking temperatures. Weiss does not meet the Court's programmable slow-cooker construction.

Paragraph 13 states: "Weiss discloses an "electronic control circuit 22" that permits an operator to select cooking temperature and cooking time. Ex. A at col. 2, ll. 61-68 and col. 4, ll. 47-57. Weiss has a control panel with regulating knobs that are used to select a cooking power (i.e., temperature) and to select a cooking time in hours and minutes. *Id.* at col. 2, ll. 61-68. Weiss' selection of cooking temperature and method of maintaining the cooking temperature through adjustable application of power to the heating element is the same method described in both the '483 and '855 patents, in which power is supplied to the heating element to select and maintain the cooking temperature. J.A. at MKM 0014, col. 3, ll. 9-12 and col. 6, ll. 1-12; Feinberg Decl., Nov. 30, 20063 ¶ 5.**"**

- The regulating knobs do not set temperature. The Weiss patent has no means to select cooking temperature. It also has no means to maintain (control) temperature. Since these means do not exist, they cannot be the same as anything, much less a feature of the patents-in-suit.

Paragraph 14 states: "Weiss discloses that its entire programmable controller (control circuit 22) is mounted to a housing,…**"**

- Incorrectly refers to Weiss as having a programmable controller.

Paragraph 15 states that in Weiss: "a selected cooking temperature is automatically lowered

after a cooking time elapses. **”**

- There is no selected cooking temperature in Weiss, nor is there any temperature control. Temperature cannot be selected, nor can it be automatically lowered.

Paragraph 16 states: “In the Weiss cooker, the temperature control disc 24 is marked in ten power or temperature increments, and the time control discs 26, 28 are incrementally marked with time settings. Ex. A at col. 3, ll. 62- 65.**”**

- The control disk 24 does not set temperature. Temperature cannot be changed in increments.

Paragraph 27 states: “Weiss discloses an “electronic control circuit 22” that allows the user to program both the cooking temperature and desired time for cooking. *Id.* at col. 2, ll. 61-68 and col. 4, ll. 47-57. This control circuit 22 also automatically changes the heating element to an automatic warm mode once the set cooking time has expired. When Weiss is set to its cooking mode “II,” after the food is cooked at the selected time and temperature, referred to as “cooking phase C,” this phase is automatically “followed by the phase M, at reduced power, in which the food is kept hot. *Id.* at col. 4, ll. 66-68. In other words, when the cooking time set by the user expires, Weiss’ control circuit 22 reduces power to a warm mode during which the food is maintained at a predetermined temperature less than the cooking temperature.**”**

- The user cannot program anything in Weiss; it doesn’t have a programmable controller. The cooking temperature cannot be set in Weiss. Weiss cannot maintain food at any predetermined temperature less than the cooking temperature.

Paragraph 32 states: “The user must select either between mode “I,” in which cooking temperature and cooking time are selected, or mode “II,” in which a user selects a cooking time and temperature and after the elapsed time the cooker is automatically switches to a lower

temperature warm mode."

- In error because cooking temperature cannot be selected in Weiss.

Paragraph 33 states: "In the Weiss programmable cooker, subsequent "turns" of the regulating discs, …"

- In error because Weiss is not a programmable cooker.

I declare under penalty of perjury that the foregoing is true and correct and, as to matters stated to be alleged on information and belief, I believe them to be true.

Executed this 22nd day of December, 2006

David L. Trumper

David L. Trumper Ph.D.

EXHIBIT A

MASSACHUSETTS INSTITUTE OF TECHNOLOGY

School of Engineering Faculty Personnel Record

Date: August, 2006

Name: David L. Trumper
Department: Mechanical Engineering

1. Date of Birth: August 24, 1957

2. Citizenship: USA

3. Education:

School	Degree	Date
Massachusetts Institute of Technology	B.S. - EECS	June 1980
Massachusetts Institute of Technology	M.S. - EECS	June 1984
Massachusetts Institute of Technology	Ph.D. - EECS	Sept. 1990

4. Title of Thesis for Most Advanced Degree:

   Magnetic Suspension Techniques for Precision Motion Control

5. Principal Fields of Interest:

   Mechatronics; Precision Engineering; Design of Precision Electromechanical Systems; Applications of Continuous- and Discrete-Time Control; Instrumentation; Electromechanics and Electric Machines; Magnetic Suspensions and Bearings; Control of Fluid Systems; Analog Circuit Design; Analog and Digital Signal Processing

6. Name and Rank of Other M.E. Faculty in Same Field:

   Stephen Dubowsky, Professor
   Ian Hunter, Professor
   Alexander Slocum, Professor
   Kamal Youcef-Toumi, Professor
   Sanjay Sarma, Associate Professor

7. Name and Rank of Faculty of Other Departments in Same Field:

   Jeffrey Lang, Professor of Electrical Engineering and Computer Science

Markus Zahn, Professor of Electrical Engineering and Computer Science
Steven Leeb, Professor of Electrical Engineering and Computer Science

8. Non-MIT Experience (including military service):

Employer	Position	Beginning	Ending
Teradyne, Inc.	Student employee	1979	1979
Hewlett-Packard Co.	Engineer	1980	1982
Waters Division of Millipore	Engineer	1986	1987
University of North Carolina - Charlotte	Assistant Professor of Electrical Engineering	1990	1993
University of North Carolina - Charlotte	Adjunct Professor of Electrical Engineering	1993	1998

9. History of MIT Appointments:

Rank	Beginning	Ending
Assistant Professor	Sept. 1993	March 1995
Rockwell International Career Development		
Assistant Professor	March 1995	June 1996
Associate Professor	July 1996	Feb. 1998
Associate Professor	March 1998	June 2000
Associate Professor with tenure	July 2000	June 2004
Professor	July 2004	present

10. Industrial Consulting Record:

Firm	Beginning	Ending
Berlyn Corp.	1987	1987
Waters Div. of Millipore	1989	1989
Boreas, Inc.	1989	1991
GCA Unit Of General Signal	1990	1993
Lincoln Laboratory, Control Systems Group	1990	1997
Sematech	1992	1993
Anorad Corp.	1993	2000
Polaroid Corporation	1993	2000
Summit Technology	1994	2000
Electroglas, Inc.	1995	1998
Integrated Solutions, Inc.	1995	1999
Amex Inc.	1995	1997
Applied Materials Technology, Inc.	1995	1996
Synkinetics, Inc.	1997	1997

Silicon Valley Group, Inc.	1997	1997
3M Corp.	1999	2001
Landis Gardner	2000	2001
Ultratech Stepper	2000	2001
Lawrence Livermore Laboratory	2000	2000
FluidSense Corp.	2001	2001
Sughrue Mion	2001	2002
AGFA Corp.	2001	2002
Codem Systems, Inc.	2002	2002
Hale and Dorr	2002	2004
Raven Technologies	2005	2005
Sughrue Mion	2005	2006
Lincoln Laboratory, Control Systems Group	2004	present
Greenberg Traurig	2006	2006
Aerotech	2005	present
ASML	2006	present

11. Department and Institute Committees, Other Assigned Duties:

Activity	Beginning	Ending
LMP Space Committee	1994	1999
Graduate Policy Committee	1994	1999
Graduate Admissions Committee	1994	2000
Design Faculty Search Committee	1995	1995
Manufacturing Faculty Search Committee	1995	1995
IAP Coordinator	1996	2000
EIP Coordinator	1997	2000
Ad Hoc Tenure Committee	2000	2000
Committee on Academic Performance	2001	2002
Ligo Oversight Committee	2002	2002
Sophomore Registration Officer	2004	2005
Junior Registration Officer	2005	present
Department Education Council	2005	present
Undergraduate Education Committee	2005	present
School of Engineering Committee on Underrepresented Minority Graduate Student Enrollment	2005	present
Graduate Admissions Committee	2006	present

12. Professional Service:

Activity	Date
ASPE Tutorial Course "Perspectives on PID Control," Santa Fe,	October, 1991
Panel review member National Science Foundation Small Business Incentives for Research (SBIR) Proposals, Washington, D.C.	January 1992
Steering committee member 3rd International Symposium on Magnetic Bearings, Alexandria, VA	July 1992
Session chairman 3rd International Symposium on Magnetic Bearings, Alexandria, VA	July 1992
Panel review member National Science Foundation, Div. of Design and Manufacturing Systems, unsolicited proposals, Washington, D.C.	January 1993
Steering committee member 2nd International Symposium on Magnetic Suspension Technology, Seattle, WA	July 1993
Steering committee member 4th International Symposium on Magnetic Bearings, Zurich, Switzerland	August 1994
ASPE Tutorial Course "Actuators and Bearings for Precision Rectilinear Motion," Cincinnati, OH	Oct. 3, 1994
Industrial Tutorial Course "Applied Control System Design", Summit Technology, Waltham, MA	December 1994
MIT Summer Session Course "Digital Control System Design for Applications," MIT	June 19-23, 1995
ASPE Tutorial Course, "Actuators and Bearings for Precision Rectilinear Motion," Austin, TX	October 1995

Session Chairman, ASME International Mechanical Engineering Congress and Exhibition, San Francisco, CA	November 1995
Session Chairman, 3rd International Symposium on Magnetic Suspension Technology, Tallahassee, FL	December 1995
Panel Review Member, Career Awards, National Science Foundation Washington, DC	December 1995
Steering committee member 3rd International Symposium on Magnetic Suspension Technology, Tallahassee, FL	December 1995
Director at Large, American Society for Precision Engineering	December 1995- December 1998
Session Chairman, IEEE Intermag Conference, Seattle, WA	April 1996
Steering committee member 5th International Symposium on Magnetic Bearings, Kanazawa, Japan	August 1996
Session Chairman, 5th International Symposium on Magnetic Bearings, Kanazawa, Japan	August 1996
ASPE Tutorial Course, “Actuators and Bearings for Precision Rectilinear Motion,” Monterey, CA	November 1996
Panel Review Member, Unsolicited Proposals, National Science Foundation Washington, DC	April 1997
MIT Summer Session Course, “Digital Control System Design for Applications,” MIT, June 16-20, 1997	June 1997
ASPE Tutorial Course, “Actuators and Bearings for Precision Rectilinear Motion,” Norfolk, VA	October 1997
Steering committee member 4th Int. Symposium on Magnetic Suspension Technology, Gifu, Japan	November 1997
Panel Review Member, Unsolicited Proposals, National Science Foundation, Washington, DC	June 1998

Co-chairman, 6th International Symposium on Magnetic Bearings, MIT, Cambridge, MA, August 5-7, 1998.	August 1998
Member, Organizing and Technical Program Committee, ASPE 1998 Annual Meeting, St. Louis, MO, Oct. 1998.	October 1998
Guest editor, *Precision Engineering,* American Society for Precision Engineering	1997-1998
ASPE Tutorial Course, "Actuators and Bearings for Precision Rectilinear Motion," St. Louis, MO	October 1998
Associate Editor, *Precision Engineering,* American Society for Precision Engineering	1998 – present
MIT Summer Session Course, "Digital Control System Design for Applications," MIT, June 21-25, 1999.	June 1999
ASPE Tutorial Course, "Precision Mechatronics," Monterey, CA	October 1999
Reviewer, NSF proposals, DMII Div.	November 1999
MIT Summer Session Course, "Digital Control System Design for Applications," MIT, July 31-Aug. 4, 2000.	August 2000
Member, International Advisory Committee, 7th International Symposium on Magnetic Bearings, August 24-25, 2000, Swiss Fed. Inst. of Tech., Zurich.	August 2000
Member, Steering Committee, Mechatronics 2000	September 2000
ASPE Tutorial Course, "Precision Mechatronics," Scottsdale, AZ	October 2000
Co-chairman, ASPE Spring Topical Meeting: Control of Precision Systems	April 2001
MIT Summer Session Course, "Digital Control System Design for Applications," MIT, July 30-Aug. 3, 2001.	August 2001
Member, Editorial Board, *Mechatronics*, pub. by Elsevier Science	1999-present

Member, International Advisory Committee, 6th International Symposium on Magnetic Suspension Technology	October 2001
Member, International Advisory Committee, Third International Symposium on Linear Drives for Industry Applications	October 2001
ASPE Tutorial Course, "Precision Mechatronics," Crystal City, Washington, DC	November 2001
Review panel, NSF proposals, DMII Div.	April 2002
Member, Steering Committee, Euspen 3rd International Conf. Eindhoven University of Technology, Netherlands	May 2002
Member, International Scientific Advisory Board, MOVIC 2002 Saitama, Japan.	August, 2002
University of Delft Summer Session Course, "Digital Control System Design for Applications," University of Delft, Netherlands, June 17-21, 2002.	June 2002
Member, International Advisory Committee, 8th International Symposium on Magnetic Bearings, August 26-28, 2002, Mito, Japan.	August 2002
Conference section organizer, National Academy of Engineering German-American Frontiers of Engineering Conference	May 2003
ASPE Tutorial Course, "Precision Mechatronics, Parts 1 and 2," Portland, OR	October 2003
Co-Chairman, ASPE Spring Topical Meeting, "Control of Precision Systems," MIT, Cambridge, MA.	April 2004
Co-chairman, 9th International Symposium on Magnetic Bearings, University of Kentucky, Lexington, KY.	August 2004
ASPE Tutorial Course, "Precision Mechatronics, Parts 1 and 2," Orlando, FL	October 2004
Reviewer, NSF proposals, DMII Div.	May 2005
International Steering Committee, Linear Drives for Industry Applications, Awaji Island, Japan	September 2005

ASPE Tutorial Course, "Precision Mechatronics, Parts 1 and 2," Norfolk, VA	October 2005
Editorial Advisory Board, *Mechatronics*, International Federation of Automatic Control	2000-2005
Organizing Committee, ASPE Spring Topical Meeting, "Challenges at the Intersection of Precision Engineering and Vacuum Technology", Pittsburgh, PA	April 2006
International Steering Committee, International Conference on Precision Engineering, Kobe, Japan	August 2006
ASPE President	2005
Member, ASPE Board of Directors	2004-present
University of Delft Summer Session Course, "Digital Control System Design for Applications," University of Delft, Netherlands, June 13-16, 2006.	June 2006

13. Awards and Honors Received:

Award	Date
Hewlett- Packard Master's Fellowship	1982
IBM Graduate Fellowship	1984 - 1986
NSF Presidential Young Investigator	1991 - 1996
Rockwell International Career Development Chair	1995 – 1998
Spira Award for Excellence in Teaching	1998
ASME Leonardo da Vinci Award	1999
3M Innovation Award	2001
Spira Award for Excellence in Teaching	2002
Keenan Award	2006

14. Current Organization Membership:

Organization

Corresponding Member, International Institution for Production Engineering Research (CIRP)
Institute of Electrical and Electronics Engineers (IEEE)
American Society for Precision Engineering (ASPE)
Director-at-Large, 1995-1998
Guest editor, *Precision Engineering,* 1997-1998
Associate Editor, *Precision Engineering,* 1998-present
Vice-President, 2004-2005
President, 2005-2006
American Society of Mechanical Engineers (ASME)

15. Patents and Patent Applications Pending:

U.S. Issued:

1. Trumper, D.L. and Dourdeville, T., "Fluid Composition and Volumetric Delivery Control," #4,767,279, August 30, 1988.

2. Trumper, D.L., "Bearing for Use in High Resolution Precision Control Device," #5,157,296, October 20, 1992. Licensed to Ultratech Stepper.

3. Trumper, D.L., "Magnetic Positioning Device," #5,196,745, March 23, 1993. Licensed to Ultratech Stepper.

4. Trumper, D.L., "Bearing for Use in High Resolution Precision Control Device," #5,294,854, March 15, 1994. Licensed to Ultratech Stepper.

5. Trumper, D.L., Kim, Won-jong, Williams, Mark E., "Magnetic Arrays," #5,631,618, May 20, 1997.

6. Trumper, D.L., Williams, M.E., "Positioner with Long Travel in Two Dimensions," #5,699,621, December 23, 1997.

7. Trumper, D.L. and Kim, W.-J., "Magnetic Positioner Having a Single Moving Part," #6,003,230, December 21, 1999.

8. Trumper, D.L. and Schwartz, L., "Magnetic Actuator With Long Travel in One Direction," #6066998, May 23, 2000.

9. Trumper, D.L., and Liebman, M.J., "Method and Apparatus for Cooling Current Carrying Coil," #6262503, July 17, 2001.

10. Trumper, D.L. and Ludwick, S.J., "Precision High Speed Turning Machine," #6237452, May, 2001.

11. Trumper, D.L., and Konkola, P., "Methods and Apparatus Involving Selectively Tailored Electromagnetic Fields," #6316849, November, 2001.

U.S. Pending

1. Trumper, D.L., and Kendale, Amar, "Mechanisms and Control Techniques for Soft Contact Lithography," provisional application submitted January 11, 2002; full application submitted January 10, 2003.

2. Montesanti, R., and Trumper, D.L., "Micro-Rotary Fast Tool Servo," application submitted June, 2003.

3. Montesanti, R., and Trumper, D.L., "Flux-Steering Rotary Fast Tool Servo," application submitted September, 2003.

4. Lu, X-L., and Trumper, D.L., "Ultrafast Tool Servos", application submitted October, 2004.

16. Professional Registration:

None.

17. Major New Products, Processes, Designs, or Systems (most developed in collaboration with graduate students):

Developed novel pump flow control method, used in liquid chromatography pumping systems. Used in commercial product line of Waters Chromatography for interfacing liquid chromatographs with mass spectrometer detectors. Improved flow control by a factor of 50 over previous commercial device. Received my first patent for this work.

Designed world's highest resolution magnetic suspension stage (position resolution of 50 picometers RMS). First scanning tunneling microscope images taken with a magnetic suspension stage. Work extended to include levitation with linear motors in oil, greatly extending travel range of stage.

Designed family of magnetic suspension lithography stages; the first use of this technology for photolithography systems. Technology licensed to US supplier of lithography equipment.

Designed new class of magnetic suspension actuators for mirror scanning in FTIR spectrometers using novel *super-hybrid* magnetic circuit topology.

Designed novel fast-tool servomechanism and control strategy for diamond turning of lenses for the ophthalmic industry. Rotary direct-drive tool axis achieves better than 50 g accelerations on the tool, over a travel of 40 mm, with micrometer-scale positioning accuracy. We can thereby produce eyeglass lenses with 10 times better form accuracy in half the time as compared with present commercial equipment.

Designed new cooling methods for linear motors which allow a factor of five increase in force density over conventional designs.

Developed novel low-fringing-field linear motors for use in electron beam lithography. Demonstrates for first time feasibility of using linear motors in low-fringing-field applications.

Designed and experimentally demonstrated new class of machines for implementing automation of microcontact printing, and for automated production of microcontact stamps.

Designed new class of electromagnetically-driven fast tool servos as replacements for piezoelectically-driven devices. Experimentally demonstrated bandwidth in excess of 20 kHz, with tool acceleration of 500 g's. Acceleration up to 2000 g within design capabilities.

1. Teaching Record

Term	Subject Number	Title	Role	Course Type	Course Evaluation Survey Given
FT 91	EEGR 2111 (UNCC)	Circuit Theory	Instructor	UG	N.A. (not MIT)
ST 91	EEGR 4112 (UNCC)	Digital Control System Design	Instructor	UG	N.A. (not MIT)
FT 92	EEGR 4111 (UNCC)	Classical Control System Design	Instructor	UG	N.A. (not MIT)
ST 92	EEGR 5112 (UNCC)	Nonlinear Control Design	Instructor	G	N.A. (not MIT)
ST 92	EEGR 6090 (UNCC)	Special Topics: Electromechanical Systems	Instructor	G	N.A. (not MIT)
FT 93	EEGR 4111 (UNCC)	Classical Control System Design	Instructor	UG	N.A. (not MIT)
ST 93	EEGR 4112 (UNCC)	Digital Control System Design	Instructor	UG	N.A. (not MIT)
FT 93	2.73	Design Projects	Recitation Instructor	UG	Yes
ST 94	2.171	Analysis and Design of Digital Control Systems	Instructor	H	Yes
FT 94	2.02	Introduction to System Dynamics	Co-Instructor	UG	Yes
ST 95	2.171	Analysis and Design of Digital Control Systems	Instructor	H	Yes
FT 95	2.737	Designing Smart Machines	Instructor	H	Yes
ST 96	2.737	Designing Smart Machines	Instructor	H	Yes
FT 96	2.737	Mechatronics	Instructor	H	Yes
ST97	2.171	Analysis and		H	Yes

		Design of Digital Control Systems			
Term	Subject Number	Title	Role	Course Type	Course Evaluation Survey Given
FT97	2.737	Mechatronics	Instructor	H	Yes
ST98	2.171	Analysis and Design of Digital Control Systems	Instructor	H	Yes
FT98	2.737	Mechatronics	Instructor	UG	Yes
ST99	2.737	Mechatronics	Instructor	UG	Yes
FT99	2.737	Mechatronics	Instructor	UG	Yes
ST00	2.003	Systems Modeling and Control I	Co-instructor	UG	Yes
ST00	2.171	Analysis and Design of Digital Control Systems	Instructor	H	Yes
FT00	N/A	family leave	N/A	N/A	N/A
ST01	N/A	sabbatical	N/A	N/A	N/A
FT01	2.003	Modeling Dynamics and Control I	Instructor	UG	Yes
ST02	2.003	Modeling Dynamics and Control I	Lab Instructor	UG	Yes
FT02	2.003	Modeling Dynamics and Control I	Instructor	UG	Yes
ST03	2.003	Modeling Dynamics and Control I	Instructor	UG	Yes
ST03	2.998	Advanced topics: Digital Control	Instructor	G	No
FT 03	2.003	Modeling Dynamics and Control I	Instructor	UG	No
ST04	2.003	Modeling Dynamics and Control I	Recitation Instructor	UG	Yes
FT04	2.003	Modeling Dynamics and Control I	Instructor	UG	Yes

ST 05	2.003	Modeling Dynamics and Control I	Instructor	UG	Yes
FT 05	2.003	Dynamics and Vibrations	Instructor	UG	Yes
ST 06	2.737	Mechatronics	Instructor	G	Yest
FT 06	2.171	Analysis and Design of Digital Control Systems	Instructor	G	

2. Other Educational Contributions
   a) Developed new syllabus and associated lab experiences for revised offering of 2.003 Modeling Dynamics and Control I. Supervised graduate students to design and implement 10 new sets of lab hardware experiments, with associated software, electronics, and supporting documentation. Each experiment implemented on 12 lab stations.
   b) Implemented web site documenting new 2.003 course offering and laboratories. Web site includes details of lab operation and supporting information to allow other faculty to duplicate lab experiments.

Record of Research Funding for
David L. Trumper

1. Books:
   None.

2. Papers in Refereed Journals:

   2.1. Trumper, D.L., "An Electronically-Controlled Pressure Regulator," *ASME Journal of Dynamic Systems, Measurement, and Control*, Vol. 111, No. 1, March 1989, pp. 75-82.

   2.2. Williams, M.E. and Trumper, D.L., "Magnetic Bearing Stage for Photolithography," *CIRP Annals*, Vol. 42/1/1993, pp. 607-610. **

   2.3. Poovey, T., Holmes, M., and Trumper, D.L., "A Kinematically-Coupled Magnetic Bearing Test Fixture," *Precision Engineering*, vol. 16, No. 2, April 1994, pp. 99-108. **

   2.4. Holmes, M.L., Trumper, D.L., and Hocken, R.J., "Atomic-Scale Precision Motion Control Stage (The Angstrom Stage)," *CIRP Annals*, Vol. 44/1/1995, pp. 455-460. **

   2.5. Holmes, M.L. and Trumper, D.L., "Magnetic/Fluid Bearing Stage for Atomic-Scale Motion Control," *Precision Engineering*, vol. 18, No. 1, Jan. 1996, pp. 38-49.**

   2.6. Trumper, D. L., Kim, W-J, Williams, M. E., "Design and Analysis Framework for Linear Permanent Magnet Machines," *IEEE Transactions on Industry Applications,*Vol. 32, No. 2, March/April 1996, pp. 371-379.**

   2.7. Ludwick, S.J., Trumper, D.L. and Holmes, M.L., "Modeling and Control of a Six Degree of Freedom Magnetic/Fluidic Motion Control Stage," *IEEE Transactions on Control Systems Technology*, *Special Issue on Magnetic Bearing Control,* Vol. 4, No. 5, September 1996, pp. 553-564.**

   2.8. Subrahmanyan, P.K., Olson, S. M., and Trumper, D.L., "Linearizing Control of Magnetic Suspension Systems," *IEEE Transactions on Control Systems Technology*, Vol. 5, No. 4, July 1997, pp. 427-438.**

   2.9. Kim, W-J, Trumper, D.L. and Bryan, J., "Linear Motor Levitated Stage for Photolithography," *CIRP Annals*, Vol. 46/1/1997, pp. 447-450.**

   2.10. Nohavec, D.R., and Trumper, D.L., "Super-Hybrid Magnetic Suspensions for Interferometric Scanners," *JSME International Journal*, Series C, Vol. 40, No. 4, Dec, 1997, pp. 570-583, Special Issue on Magnetic Bearings. **

2.11. Kim, W-J, Trumper, D.L, "High-Precision Magnetic Levitation Stage for Photolithography," *Precision Engineering,* Vol. 22, No. 2, April 1998, pp. 66-77.**

2.12. Kim, W-J, Trumper, D.L, Lang, J.H., "Modeling and Vector Control of a Planar Magnetic Levitator," *IEEE Transactions on Industry Applications,* Vol. 34, No. 6, Nov./Dec., 1998, pp. 1254-1262.**

2.13. Ludwick, S.J., Chargin, D.A., Calzaretta, J.A., and Trumper, D.L., "Design of a Rotary Fast Tool Servo for Ophthalmic Lens Fabrication," *Precision Engineering*, Vol. 23, No. 4, September, 1999.**

2.14. Holmes, M.L., Hocken, R.J., and Trumper, D.L., "The Long-Range Scanning Stage: a Novel Platform for Scanned-Probe Microscopy," *Precision Engineering*; Vol. 24, No. 3, July, 2000.**

2.15. Wang, C-H., Hocken, R.J., and Trumper, D.L., "Dynamics and Control of the UNCC/MIT Subatomic Measuring Machine," *CIRP Annals,* Vol. 50/1/2001, pp. 373-376.

2.16. Lu, X., Weng, M.C., and Trumper, D.L., "Vibration Control of Flexible Structures Using Sensor Averaging and Actuator Averaging Methods," IEEE Transactions on Control Systems Technology, Volume 10, Issue 4, July, 2002.**

2.17. Sato, Y., Trumper, D. L., "A Vibration Isolation Platform," *Mechatronics*, Volume 12, Issue 2, February, 2002.

2.18. Chen, K-S, "Trumper, D.L., and Smith, S.T., Design and Control for an Electromagnetically Driven X-Y-Theta Stage," *Precision Engineering,* Vol. 26, No. 4, October, 2002.**

2.19. Konkola, P., Trumper, D.L., "Electromagnetic Design of a Low-Fringing-Field Magnetic Bearing Stage for Electron Beam Lithography," *JSME International Journal, Special Issue on Magnetic Bearings*, Series C, Vol. 46, No. 2, June 2003.**

2.20. Byl, M.F., Ludwick, S.J., and Trumper, D.L., "A Loop-Shaping Perspective for Tuning Adaptive Feedforward Controllers," *Precision Engineering: Journal of the International Societies for Precision Engineering,* Vol. 29, Issue 1, January, 2005, pp. 27-40.**

2.21. Stein, A.J., Hocken, R.J., and Trumper, D.L., "A Metrological Atomic Force Microscope," accepted for publication with mandatory revisions for *Precision*

Engineering: Journal of the International Societies for Precision Engineering, currently in revision.**

2.22. Lu, X-L, and Trumper, D.L., "Ultrafast Tool Servos for Diamond Turning," *CIRP Annals,* Vol. 54/1/2005, pp. 383-388.**

2.23. Trumper, D.L., "Levitation Linear Motors for Precision Positioning," IEEJ Transactions on Electronics, Information and Systems, No.10, 2006.**

3. Proceedings of Refereed Conferences:

3.1. Trumper, D.L. and Slocum, A.H., "Five Degree of Freedom Control of an Ultra-Precision Magnetically-Suspended Linear Bearing," NASA Workshop on Aerospace Applications of Magnetic Suspension Technology, Sept. 25-27, 1990.

3.2. Trumper, D.L., "Nonlinear Compensation Techniques for Magnetic Suspension Systems," NASA Workshop on Aerospace Applications of Magnetic Suspension Technology, Sept. 25-27, 1990.

3.3. Trumper, D.L. and Queen, M.A., "Precision Magnetic Suspension Linear Bearing," NASA International Symposium on Magnetic Suspension Technology, Aug. 19-23, 1991. **

3.4. Trumper, D.L., Sanders, J.C., Nguyen, T.H., and Queen, M.A., "Experimental Results in Nonlinear Compensation of a One-Degree-of-Freedom Magnetic Suspension," NASA International Symposium on Magnetic Suspension Technology, Aug. 19-23, 1991. **

3.5. Trumper, D.L. and Slocum, A.H., "Nanometer Motion Control via Magnetic Suspension," Proceedings of the 6th Annual Meeting of the American Society for Precision Engineering, Oct. 13-18, 1991.

3.6. Trumper, D.L. and Queen, M.A., "Control and Actuator Design for a Precision Magnetic Suspension Linear Bearing," SPIE OE/Aerospace Sensing Symposium, Conference No. 1696, Controls for Optical Systems, Orlando, FL, April 20-24, 1992. **

3.7. Trumper, D.L., Nguyen, T., and Williams, M., "Power-Efficient Linear Motor for Precision Motion Control," Proceedings of the 7th Annual Meeting of the American Society for Precision Engineering, Oct. 20-23, 1992. **

3.8. Poovey, T., Holmes, M., and Trumper, D.L., "A Kinematically Coupled Magnetic Bearing Test Fixture," Proceedings of the 7th Annual Meeting of the American Society for Precision Engineering, Oct. 20-23, 1992. **

3.9. Trumper, D.L., Williams, M.E., and Nguyen, T.H., "Magnet Arrays for Synchronous Machines," IEEE Industry Applications Society Annual Conference, Toronto, Canada, Oct. 3-8, 1993.

3.10. Trumper, D.L., Williams, M.E., and Nguyen, T., "Magnetic Linear Bearing: Theory and Experiment," 7th International Precision Engineering Seminar (IPES-7), Kobe, Japan, May, 1993. **

3.11. Williams, M.E. and Trumper, D.L., "Materials for Efficient High-Flux Magnetic-Bearing Actuators," Proceedings of the 2nd International Symposium on Magnetic Suspension Technology, Seattle, WA, Aug. 11-13, 1994, NASA Conference Publication #3247, Part 1, pp. 135-145. **

3.12. Kuzin, A.V., Holmes, M.L., Behrozjou, R., and Trumper, D.L., "Analysis of Achievable Disturbance Attenuation in a Precision Magnetically-Suspended Motion Control System," Proceedings of the 2nd International Symposium on Magnetic Suspension Technology, Seattle, WA, Aug. 11-13, 1994, NASA Conference Publication #3247, Part 2, pp. 653-665. **

3.13. Trumper, D.L., Holmes, M., Behrozjou, R., and Batchelder, D., "Magnetic/Fluid-Bearing Stage for Atomic-Scale Motion Control," 1994 ASPE Spring Topical Meeting, Tucson, AZ, April 6-8, 1994. **

3.14. Trumper, D.L., Holmes, M., Behrozjou, R., and Batchelder, D., "Atomic-Scale Motion Control via Hybrid Fluid/Magnetic Bearings," 4th International Symposium on Magnetic Bearings, Zürich, Switzerland, August 25, 1994. **

3.15. Trumper, D.L., Kim, W-J. and Williams, M.E., "Design & Analysis Framework for Linear Permanent Magnet Machines," 1994 IEEE Industry Applications Society Annual Meeting, Denver, CO, October 2-7, 1994. **

3.16. Williams, M.E. and Trumper, D.L., "Precision Magnetic Bearing Six Degree of Freedom Stage," Proceedings of the 9th Annual Meeting of the American Society for Precision Engineering, October 2-7, 1994, pp. 65-68. **

3.17. Chen, K.S., Montero, A., Trumper, D.L., Smith, S.T., and Williams, M.E., "Spring Dominated Design of a High Load Capacity Electromagnetically Driven X-Y-□ Stage," 1995 ASPE Annual Meeting, October, 1995.**

3.18. Ludwick, S.J., Trumper, D.L., and Holmes, M.L., "Design and Control of a Six Degree of Freedom Magnetic/Fluidic Motion Control Stage," ASME 1995 International Mech. Eng. Congress and Exposition, San Francisco, CA, DSC Volume 57-1, pp. 511-518, November 12-17, 1995. **

3.19. Ludwick, S.J., Trumper, D.L., and Holmes, M.L., "Feedback Linearization in a Six Degree-of-Freedom Mag-Lev Stage," Third International Symposium on Magnetic Suspension Technology, Tallahassee, FL, December 13-15, 1995. **

3.20. Williams, M.E. and Trumper, D.L., "Precision Magnetic Bearing Six Degree of Freedom Stage," Third International Symposium on Magnetic Suspension Technology, Tallahassee, FL, Dec. 13-15, 1995. **

3.21. Kim, W.-J. and Trumper, D.L., "Force Ripple in Surface-Wound Permanent-Magnet Linear Motors", IEEE Intermag '96, Seattle, WA, April 9-12, 1996.**

3.22. Schwartz, L.S. and Trumper, D.L., "Magnetic Optical Bearing Design for Minor Wavelength Scans in a Spaceborne Interferometer," 5th International Symposium on Magnetic Bearings, Kanazawa, Japan, August 28-30, 1996.**

3.23. Kim, W.-J., Berhan, M.T., Trumper, D.L., and Lang, J.H., "Analysis and Implementation of a Tubular Motor with Halbach Magnet Array, " 1996 IEEE-IAS Annual Meeting, San Diego, CA, October 5-10, 1996.**

3.24. Ludwick, S. J. and Trumper, D.L., "Noise Optimal Control of a Fluid-Floated Magnetic Positioner," Proceedings of the 1996 ASME Int'l Mechanical Engineering Congress and Exposition, Atlanta, GA, November 1996, DSC-Vol. 58, pp. 309-316.**

3.25. Holmes, M.L., Hocken, R.J., and Trumper, D.L., "A Long-Range Scanning Stage (The LORS Project)," Proceedings of 1996 ASPE Annual Meeting, November 1996.**

3.26. Hocken, R., Holmes, M.L., and Trumper, D.L., "Progress on the Long Range Magnetic Stage," Proceedings of the 9th International Precision Engineering Seminar, Braunschweig, Germany, May 26-30, 1997.**

3.27. Kim, W.-J., Lang, J., and Trumper, D.L., "Modeling and Vector Control of a Planar Magnetic Levitator, " IEEE IAS 32nd Annual Meeting, October 9, 1997.**

3.28. Kim, W-J, and Trumper, D.L., "High-Precision Magnetic Levitation Stage for Photolithography," Proceedings of 1997 ASPE Annual Meeting, Norfolk, VA, Oct. 7-9, 1997.**

3.29. Holmes, M.L., Hocken, R.J., and Trumper, D.L., "A Long-Range Scanning Stage (The LORS Project)," Proceedings of 1997 ASPE Annual Meeting, October 7-9, 1997, Norfolk, VA.**

3.30. Williams, M.E., Subrahmanyan, P.K., and Trumper, D.L., "Six Axis Active Vibration Isolation and Payload Reaction Force Compensation System," Proceedings of 1997 ASPE Annual Meeting, October 7-9, 1997, Norfolk, VA.**

3.31. Kim, W-J, and Trumper, D.L., "Six-Degree-of-Freedom Planar Positioner with Linear Magnetic Bearings/Motors," 6th International Symposium on Magnetic Bearings, MIT, Cambridge, MA, Aug. 5-7, 1998.**

3.32. Holmes, M. L., Trumper, D.L., Hocken, RJ., "Magnetically-Suspended Stage for Accurate Positioning of Large Samples in Scanned Probe Microscopy," 6th International Symposium on Magnetic Bearings, MIT, Cambridge, MA, Aug. 5-7, 1998.**

3.33. Subrahmanyan, P.K., Williams, M.E., and Trumper, D.L., "Active Vibration Isolation Design for a Photolithographic Stepper," 6th International Symposium on Magnetic Bearings, MIT, Cambridge, MA, Aug. 5-7, 1998.**

3.34. Gibbons, K.A., Borenstein, J.T., Nokes, D.S., Weinberg, M.S., and Trumper, D.L., "The Design, Fabrication, and Testing of a Micromechanical Silicon Oscillating Accelerometer," AIAA Conference on Guidance and Control, Boston, MA, August 10-12, 1998.**

3.35. Ludwick, S.J., Ma, D.C., and Trumper, D.L., "A Rotary Arm Based Turning Machine for Ophthalmic Lenses," proceedings of the 1998 ASPE Annual Meeting, October 25-30, 1998, St. Louis, MO.**

3.36. Liebman, M.J., and Trumper, D.L., "Pushing the Thermal Limit in Linear Motors," proceedings of the 1998 ASPE Annual Meeting, October 25-30, 1998, St. Louis, MO.**

3.37. Subrahmanyan, P.K., and Trumper, D.L., "Eigenstructure Assignment Techniques for Precision Motion Control," proceedings of the 1998 ASPE Annual Meeting, October 25-30, 1998, St. Louis, MO.**

3.38. Kim, W-J, and Trumper, D.L., "Precision Control of Planar Magnetic Levitator," proceedings of the 1998 ASPE Annual Meeting, October 25-30, 1998, St. Louis, MO.**

3.39. Kim, W-J, and Trumper, D.L., "Velocity Regulation Limits in a Precision Two-Dimensional Magnetic Levitator," IEEE 1999 International Magnetics Conference (INTERMAG 99), May 18-21, 1999, Kyongju, Korea.**

3.40. Subrahmanyan, P.K, and Trumper, D.L., "Eigenvector Assignment", received best presentation award in session TM-10, 1999 American Control Conference, June 2-4, 1999, San Diego, CA.**

3.41. Weng, M-C., Ritter, R.J., and Trumper, D.L., "Magnetic Suspension and Vibration Control of Beams for Non-Contact Processing," 1999 IEEE Conference on Control Applications, Kohala Coast-Island of Hawaii, USA, August 22-26, 1999.**

3.42. Trumper, D.L., and Ludwick, S.J., "Development of 2.737 Mechatronics at MIT," *invited paper* for special session on Teaching Mechatronics, proceedings of IEEE/ASME Conference on Advanced Intelligent Mechatronics (AIM `99), Atlanta, GA, September 19-23, 1999, pp. 446-451.

3.43. Ludwick, S.J., Chargin, D.A., Calzaretta, J.A., and Trumper, D.L., "Calibration and Control of a Rotary Fast Tool Servo," 1999 ASPE Annual Meeting, Monterey, CA, Oct. 31-Nov. 4, 1999.**

3.44. Weng, M.C., and Trumper, D.L., "A Design Method for Magnetic Suspension and Vibration Control of Levitated Beams for Noncontact Processing," Proceedings of the 5th International Symposium on Magnetic Suspension Technology, December 1-3, 1999.**

3.45. Trumper, D.L., and Ludwick, S.J., "Development of dSPACE Tools for 2.737 Mechatronics at MIT," dSPACE User's Conference, Detroit, MI, May 1-2, 2000.**

3.46. Trumper, D.L., and Sato, T., "A Vibration Isolation Platform," Mechatronics 2000, the 7th Mechatronics Forum International Conference, Atlanta, GA, Sept. 6-8, 2000.

3.47. Calzaretta, J., Ludwick, S.J., and Trumper, D.L., "Repetitive Control of a Fast-Tool Servo for Asymmetric Diamond Turning," Mechatronics 2000, the 7th Mechatronics Forum International Conference, Atlanta, GA, Sept. 6-8, 2000.**

3.48. Trumper D.L., Weng, M-C, and Lu, X., "Magnetic Suspension of Flexible Elements," 7th International Symposium on Magnetic Bearings, Zurich, Switzerland, Aug., 2000.**

3.49. Calzaretta, J., Ludwick, S., Byl, M., Trumper, D., "Repetitive Control of a Rotary Fast Tool Servo," ASPE Spring Topical Meeting on Control of Precision Systems, Sheraton Rittenhouse Hotel, Philadelphia, PA, April 18-20, 2001.**

3.50. Sato, Y., Trumper, D.L., "A Novel Single Degree-Of-Freedom Active Vibration Isolation System," 2001 Annual Meeting of the ASPE, Crystal City, VA, Nov 13-16, 2001.

3.51. Liebman, M., Trumper, D.L., "Rotary-Linear Hybrid Axes for Meso-Scale Machining," 2001 Annual Meeting of the ASPE, Crystal City, VA, Nov 13-16, 2001.

3.52. Byl, M.F., Calzaretta, J.A., Ludwick, S.J., and Trumper, D.L., "Tuning Controllers with Multiple Adaptive Feed-Forward Cancellation Resonators," 2002 Annual Meeting of the EUSPEN, University of Eindhoven, May 26-30, 2002.

3.53. Konkola, P., and Trumper, D.L., "Magnetic Bearing Stages for Electron Beam Lithography," Eighth International Symposium on Magnetic Bearings (ISMB-8), Hotel Lake View Mito, Japan, August 26-28, 2002.

3.54. Sato, T., and Trumper, D.L., "A Novel Single Degree-of-Freedom Active Vibration Isolation System," Eighth International Symposium on Magnetic Bearings (ISMB-8), Hotel Lake View Mito, Japan, August 26-28, 2002. (this work is an extension/revision of paper #50 above, with some portions in common)

3.55. Shilpiekandula, V., Trumper, D. L. , Liebman, M. K., and Vona, M. A, "A Laser Speckle Sensor for Compound Rotary-linear Motion Metrology, 2003 Annual Meeting of the ASPE, Portland, OR, October, 25-30, 2003.**

3.56. Trumper, D.L., and Lu, X-D, "Electromagnetically-Driven Ultrafast Tool Servo," 2003 Annual Meeting of the ASPE, Portland, OR, October, 25-30, 2003.**

3.57. Montesanti, R. C., and Trumper, D.L., "High-Bandwidth Short-Stroke Rotary Fast Tool Servo," 2003 Annual Meeting of the ASPE, Portland, OR, October, 25-30, 2003.**

3.58. Cattell, J.H., and Trumper, D.L., "Adaptive Feedforward Cancellation Viewed from an Oscillator Amplitude Control Perspective," 2003 Annual Meeting of the ASPE, Portland, OR, October, 25-30, 2003.**

3.59. Montesanti, R. C., and Trumper, D.L., "A 10 kHz Short-Stroke Rotary Fast Tool Servo," 2004 Annual Meeting of the ASPE, Orlando, FL, October, 23-28, 2004.**

3.60. Lu, X-L., and Trumper, D.L., "Electromagnetically-Driven Ultrafast Tool Servo," 2004 Annual Meeting of the ASPE, Orlando, FL, October, 23-28, 2004.**

3.61. Yang, H.; Buice, E. S.; Peruru, H; Smith, S. T.; Hocken, R. J. (University of North Carolina-Charlotte); Smith, R. M. (National Institute of Standards and Technolology); and Trumper, D. L.; Otten, D. (Massachusetts Institute of Technology), "Multi-degree-of-freedom Ultra-precision Motion Control Platform for Measurement of Nano-structures: A Coarse/fine Approach," 2004 Annual Meeting of the ASPE, Orlando, FL, October, 23-28, 2004.**

3.62. Lu, X-L., and Trumper, D.L., "An Ultra-Fast Tool Servo for Diamond Turning of Contoured Surfaces," 2005 Annual Meeting of the ASPE, Norfolk, VA, October, 10-14, 2005.**

3.63. Byl, M.F., and Trumper, D.L., "A Long Stroke Fast Tool Servo with Integral Balance Mass," 2005 Annual Meeting of the ASPE, Norfolk, VA, October, 10-14, 2005.**

3.64. Mazzeo, A., Trumper, D.L., Stein, A.J., and Hocken, R.J., "Atomic Force Microscope for Accurate Dimensional Metrology," 2005 Annual Meeting of the ASPE, Norfolk, VA, October, 10-14, 2005.**

3.65. Montesanti, R.C., and Trumper, D.L., "System Dynamics and Control System for a High Bandwidth Rotary Actuator and Fast Tool Servo," 2005 Annual Meeting of the ASPE, Norfolk, VA, October, 10-14, 2005.**

3.66. Barton, A., and Trumper, D.L., "Rubber Bearings and Their Applicability in Precision Machines," 2005 Annual Meeting of the ASPE, Norfolk, VA, October, 10-14, 2005.**

3.67. Buice, E. S., Yang, H., Smith, S. T., Hocken, R. J., Trumper, D. L., Otten, D., and Seugling, R., "Early Testing of a Coarse/Fine Precision Motion Control System," 2005 Annual Meeting of the ASPE, Norfolk, VA, October, 10-14, 2005.**

3.68. Trumper, D.L., "Low Stray Field Maglev Stages for Vacuum Applications," ASPE Spring Topical Meeting, Pittsburgh, PA, May 1-2, 2006.**

3.69. Trumper, D.L., and Lu, X-D., "Fast Tool Servos: Advances in Precision, Acceleration, and Bandwidth," 11th International Conference on Precision Engineering, Tokyo, Japan, August, 2006.**

4. Other Major Publications

4.1. Trumper, D.L. and Roberge, J.K., problem-solution manual for MIT video course, "Electronic Feedback Systems," MIT's Center for Advanced Engineering Study, 1986.

4.2. Course notes for 6.302/16.30 on classical control system design; joint with J. Roberge, L. Gould, W. Markey. Notes also used in Course 2.737. Notes used from 1993 to present.

4.3. Proceedings of the Sixth International Symposium on Magnetic Bearings (D. Trumper, P. Allaire, eds.), MIT, Cambridge, MA, August 1998.

4.4. Course notes for 2.003 Modeling, Dynamics, and Control I. Notes in development as a textbook.

4.5. Lundberg, K.H., Miller, H.R., and Trumper, D.L., "Troubles at the Origin: Consistent Usage and Properties of the Unilateral Laplace Transform," submitted to IEEE Control Systems Magazine, August, 2004.

5. Internal Memoranda and Progress Reports:

None.

6. Invited Lectures:
March 1992, "Analysis and Design of a Novel Magnetic Suspension Linear Motor," MIT Laboratory of Electromagnetic and Electronic Systems, Cambridge, MA; also at Lincoln Laboratory, Lexington, MA.

November 1992, "Electromagnetic Bearings and Drives for Nanometer-Scale Motion Control," Carnegie Mellon University, Pittsburgh, PA, also at Stanford University, Palo Alto, CA.

January 1993, "Precision Control System Design," Polaroid Corp., Cambridge, MA, also at MIT Leaders for Manufacturing, Cambridge, MA (half-day seminar at Polaroid, full-day seminar for LFM).

Record of Research Funding for
David L. Trumper

August 1993, “Magnetic Suspension Lithography Stage Design”, University of Tokyo, Tokyo, Japan; also at Ibaraki University, Hitachi City, Japan; also at Ritsumeikan University, Kyoto, Japan.

August 1994, “Magnetic Linear Bearing: Theory and Experiment,” Physikalisch-Technische Bundesanstalt, Braunschweig, Germany.

August 1994, “Atomic-Scale Motion Control via Hybrid Fluid/Magnetic Bearings,” Physikalisch-Technische Bundesanstalt, Braunschweig, Germany.

October 1994, “Design of Fluidic/Magnetic Suspension Systems for Atomic-Scale Positioning,” MIT Mechanical Engineering Colloquium, Cambridge, MA.

February 1995, “Magnetic Suspension Systems for Atomic-Scale Positioning,” seminar for IEEE Control Systems Society, Boston, MA.

April 1995, “Precision Mechatronic Systems”, Allen-Bradley, Milwaukee, WI.

August 1996, “Atomic-Resolution Magnetic Suspension Design”, University of Tokyo, Tokyo, Japan.

October 1996, “Magnetic Bearing Stages for Lithography and Scanned Probe Microscopy,” Draper Laboratory, Cambridge, MA.

November 1996, “Possibilities for Maglev Positioners for E-Beam Lithography,” ETEC Corporation, Hayward, CA.

November 1996, “The Application of Magnetic Suspension Technology to Precise Positioning Systems,” Sandia National Labs, Livermore, CA; also at Lawrence Livermore National Labs, Livermore, CA.

November 1996, “The Development of Precision Magnetically-Suspended Stages for Lithographic Systems”, Departmental Colloquium, Sibley School of Mechanical and Aerospace Engineering, Cornell University, Ithaca, NY.

April 1997, “Design and Control of Precision Magnetic Suspension Stages,” George W. Woodruff School of Mechanical Engineering, Georgia Institute of Technology, Atlanta, GA.

April 1997, “Mechatronic System Design Elements,” a three-hour tutorial, George W. Woodruff School of Mechanical Engineering, Georgia Institute of Technology, Atlanta, GA.

Record of Research Funding for
David L. Trumper

October 1997, "An Overview of Magnetic Suspension Stage Design," 1997 ASPE Annual Conference, Norfolk, VA, *invited presentation*.

April 1998, "Magnetically-Levitated Positioning Systems With Sub-Nanometer Resolution," Mechanical Engineering Department, University of Wisconsin-Madison, Madison,WI

October, 1998, "Mechatronics: A Focus for Research and Teaching in Mechanical Engineering," MIT Mechanical Engineering Colloquium, Cambridge, MA.

October, 1998, "Precision Mechatronic Systems," Mechanical Engineering Dept. Seminar Series, Univ. of Illinois, Urbana-Champaign, IL.

February, 1999, "Precision Mechatronic Systems," Mechatronics Seminar, Mechanical Engineering Dept., Clemson University, Clemson, SC.

April, 1999, "Magnetic Bearing Positioning Systems for Semiconductor Manufacturing," *invited presentation* at the National Academy of Engineering 2nd German - American Frontiers of Engineering Symposium, Irvine, CA.

April, 1999, "Precision Mechatronic Systems," Jones Seminar, Thayer School of Engineering, Dartmouth College, Hanover, NH.

April, 1999, "Precision Magnetic Suspensions for Manufacturing," Dept. of Aerospace and Mechanical Engineering, Cornell University, Ithaca, NY.

September, 1999, "Development of 2.737 Mechatronics at MIT," *invited paper* for special session on Teaching Mechatronics, IEEE/ASME Conference on Advanced Intelligent Mechatronics (AIM `99), Atlanta, GA.

November, 1999, "Fast Tool Servo for Diamond Turning of Asymmetric Optics," Mechanical Engineering Dept., University of Rhode Island.

January, 2000, "A New Rotary Fast Tool Servo for Diamond Turning of Asymmetric Optics," Mechatronics Seminar, Institute of Robotics, Swiss Federal Institute of Technology, Zurich, Switzerland.

March 2000, "Precision Mechatronic Systems," Mechanical Engineering Departmental Seminar, University of Minnesota, Minneapolis, MN

August 2000, "Precision Motion Control Research at MIT," Mechanical Engineering Dept., Swiss Federal Institute of Technology, Lausanne, Switzerland.

Record of Research Funding for
David L. Trumper

March, 2001, "Mechatronics at MIT," Inaugural Symposium for the Professorship of Jan van Eijk, Delft University, Delft, Netherlands.

May, 2002, "Magnetic Bearings with Atomic-Scale Precision," invited presentation, Precision Engineering Group, Physikalisch-Technische Bundesanstalt (German National Standards Laboratory), Braunschweig, Germany.

June, 2002, "Projects for Teaching Mechatronics at MIT," invited Plenary Session Paper, Mechatronics 2002, University of Twente, Enschede, Netherlands.

August, 2002, "Combined Force/Position and Moment/Slope Control of Levitated Continua," invited paper at the 8th International Symposium on Magnetic Bearings, Mito, Japan.

March, 2004, "Viewpoints on Teaching Modelling, Dynamics, and Control at MIT," RPI, Troy, NY.

May, 2004, "From Wafer Steppers to Flying Broomsticks," Departmental Seminar, University of Massachusetts, Amherst, MA.

December, 2004, "Precision Mechatronics Research at MIT," Departmental Seminar, Mechanical Engineering Department, Columbia University, New York, NY.

January, 2005, "Ultrafast Tool Servos: Electromagnetics and Control," Departmental Seminar, Mechanical Engineering Department, University of British Columbia, Vancouver, BC, Canada.

October, 2005, "Levitation Linear Motors," invited Keynote Paper, Linear Drives for Industry Applications Conference, Awaji Island, Japan.

August, 2006, "Fast Tool Servos: Advances in Precision, Acceleration, and Bandwidth," invited Keynote Paper, International Conference on Precision Engineering, Tokyo, Japan.

Theses supervised by David L. Trumper

Summary

	Total	Completed	In Progress
Bachelor's	25	25*	0
Master's	44	39	5
Engineer's	–	–	–
Doctoral			
As Supervisor	11	10	1
As Reader	14	13	1

[* 6 students used Master's Theses to satisfy S.B. requirements.]

Bachelor's Theses: (also see Master's theses)

Aggarwal, Sanjay, "High-Bandwidth Magnetic Bearing System," June 1995.

Sheppard, Dean, "Lightweight Structures for Magnetic Suspension," December 1995.

Rohatgi, Gaurav, "Implementation of Digital Control Techniques with Application to a Flexible Manipulator," February 1996.

Ma, David, "Modelling and Control of a Three Degree of Freedom Flexural Stage", June 1996.

Irigoyen, Esteban, "Servo Motor Test Bed," June 1996.

Workeneh, Yedilakil, "Vibration Isolation Platform Design and Control," June, 1998.

St. Michel, Nathan, "Computer-Modeling of a Force-Magnifying Beam Structure," June, 1998.

Stevens, Duane, "Independent Study in Control Systems Design," January, 1999.

Lillienkamp, Katie, "Dynamic Signal Analyzer Implemented on dSPACE System", January, 1999.

Perry, Michael, "Electronics Design for Magnetic Suspension of a Flexible Beam," June, 1999.

Stimac, Andrew, "Controller for Inverted Pendulum Classroom Demonstration," June, 1999.

Hollerman, Peggy, "Weightlessness Demo for 8.01," June, 2000.

Wang, Evelyn, "Momentum Demo for 8.01," June, 2000.

Salzman, Rhonda, "Satellite Capture Device," Feb., 2000.

Wu, Ming, "Instrumentation for Los Alamos Physics Group," Feb. 2000.

Hawe, Larry, "Medical Device Weaving Machine,", June, 2004.

Rosales, Evencio, "Ball-on-Beam Balancer,", June, 2004.

Chou, Danielle, "Friction Modeling Techniques," June, 2004.

Baranowski, Robert, "Magnetic Suspension Sensor," June, 2006.

Master's Theses:

Poovey, Tony, "A Kinematically-Coupled Magnetic Bearing Test Fixture," UNC-Charlotte, Mechanical Engineering and Engineering Science, December 1992.

McMahill, Daniel R., "A High Dynamic Range Capacitive Displacement Sensor," MIT, Electrical Engineering and Computer Science, June 1993.

Batchelder, David, "Analysis and Design of High-Resolution Capacitance Probes For Use in a Precision Motion Control Stage," UNC-Charlotte, Electrical Engineering, May 1994.

Heine, Travis, "The Development of a Three-Degree of Freedom Vibration Control Test Facility," MIT, Mechanical Engineering, May 1994 (also used for B.S. degree).

Holmes, Michael, "Analysis and Design of a Magnetically-Suspended Precision Motion Control Stage", UNC-Charlotte, Electrical Engineering, May 1994.

Olson, Sean, "Nonlinear Compensation of a Single Degree of Freedom Magnetic Suspension System," MIT, Mechanical Engineering, May 1994 (also used for B.S. degree).

Nguyen, Tiep H., "Automatic Controls for a Precision Magnetic Suspension Linear Motor," UNC-Charlotte, Electrical Engineering, February 1995.

Theses supervised by David L. Trumper

Chen, Kuo-Shen, "A Spring-Dominated Regime Design of a High Load Capacity, Electromagnetically Driven X-Y-□ Stage," MIT, Mechanical Engineering, May 1995.

Schwartz, Lawrence, "Magnetic Optical Bearing (MOB) Design for Mirror Wavelength Scans in a Spaceborne Interferometer," MIT, Mechanical Engineering, May 1995 (also used for B.S. degree).

Behrouzjou, Roxana, "Analysis and Control of a Magnetically Suspended Scanning Tunneling Microscope," UNC-Charlotte, Electrical Engineering, June 1995.

Ludwick, Stephen, "Modeling and Control of a Six Degree of Freedom Magnetic/Fluidic Motion Control Stage," MIT, Mechanical Engineering, February 1996.

Berhan, Michael, "Implementation of a Halbach Array in a Tubular Linear Motor," MIT, Mechanical Engineering, May 1996.

Gibbons, Kevin, "A Micromechanical Silicon Oscillating Accelerometer," MIT, Mechanical Engineering, February 1997.

Nohavec, Donald, "Magnetic Bearing Designs for Interferometric Mirror-Scanning Mechanisms," MIT, Mechanical Engineering Dept., June 1997.

Bibler, Jared, "Effects of Imbalance and Geometric Error on Precision Grinding Machines," MIT, Mechanical Engineering, June 1997 (also used for B.S. degree).

Hoctor, John, "The Measurement of Automotive Wheel Loads at the Bearing Cup," MIT, Mechanical Engineering, February, 1998 (also used for B.S. degree).

Konkola, Paul, "Magnetic Bearing Stages for Electron-Beam Lithography," MIT, Mechanical Engineering, February, 1998.

Liebman, Michael, "Thermally Efficient Linear Motor Analysis and Design," MIT, Mechanical Engineering, February, 1998.

Ma, David, "Novel Lens Cutting Machine," MIT, Mechanical Engineering , June, 1998.

Garcia, Fermin, "Spacecraft Attitude Control System," MIT, Mechanical Engineering, June 1998.

Salvatore, Claudio, "Linear and Nonlinear Compensation Techniques for Control of a Single Degree of Freedom Magnetic Bearing," MIT, Mechanical Engineering, June 1998.

Theses supervised by David L. Trumper

Trapp, Thomas, "Modeling and Control of a Fish-Like Vehicle," MIT, Mechanical Engineering, June 1998.

Wong, Sai Bun, "Integrated-Circuit Capacitive Displacement Gages," MIT, Electrical Engineering Dept., June, 1998.

Ritter, Robin, "Sensor Designs for Magnetic Suspension Material Processing Systems," MIT, Mechanical Engineering, February, 1999.

Chargin, David, "Rotational Servomechanisms for Precision Turning Machines," MIT, Mechanical Engineering, June, 1999.

Cunningham, Rachel, "Thermal System Design for the PHENIX Experiment," MIT, Mechanical Engineering, June 1999 (also used for B.S. degree).

St. Michael, Nathan, "Design and Fabrication of Silicon Oscillating Accelerometers," MIT, Mechanical Engineering, June, 2000.

Vona, Marty, "Metrology Techniques for Compound Rotary Linear Motion," MIT, Computer Science, June, 2001.

Kendale, Amar, "Novel Stamp Generation and Printing Techniques for Soft Contact Lithography," February, 2002.

Garcia, Christian, MIT, Mechanical Engineering, "Magnetic Levitation for Down-Hole Submersible Pumps," June 2002.

Stein, Andrew, "A Metrological Atomic-Force Microscope," MIT, Mechanical Engineering, September, 2002.

Lilienkamp, Katie, "A Modular System for Lab-Based Teaching in Modeling, Dynamics, and Control," February, 2003.

Cattell, Joseph, "Adaptive Feedforward Cancellation Viewed from an Oscillator Amplitude Control Perspective," MIT, Mechanical Engineering, June 2003.

Yi, Xie, "Magnetic Suspension Demonstration System,", MIT, Electrical Engineering, June, 2003.

Shilpiekandula, Vijay, "Speckle-Based Rotary-Linear Sensor," MIT, Mechanical Engineering, February, 2004.

Barton, Augusto, "Rubber Bearings for Precision Positioning Systems", MIT, Mechanical Engineering, September, 2005.

Mazzeo, Aaron, "Accurate Capacitance Metrology for Atomic Force Microscopy," MIT, Mechanical Engineering, September, 2005.
Hawe, Larry, "Control of a Fast Steering Mirror for Laser-Based Communication," January, 2006.

Cuff, David, "Magnetic Nanopositioners," June, 2006.

Kluk, Dan, "Electromagnetic Fast Steering Mirror," work started September, 2005.

Albert, Kevin, "Flexible Robotics," work started September, 2005.

Miu, Kevin, "Advanced Active Vibration Isolation," work started June, 2006.

Ljubicic, Dean, "Accurate, Fast Atomic Force Microscope," work started June, 2006.

Boulet, Michael, work started June, 2006.

Doctoral Theses, Supervisor:

Kim, Won-Jong, "High-Precision Planar Magnetic Levitation," MIT, Electrical Engineering and Computer Science, June 1997.

Williams, Mark E., "Precision Six Degree of Freedom Magnetically-Levitated Photolithography Stage," MIT, Mechanical Engineering, February, 1998.

Holmes, Michael, "Long-Range Scanning Stage," UNC-Charlotte, Electrical Engineering, June 1998.

Ludwick, Stephen, "High-Speed Lens Cutting Machine", MIT, Mechanical Engineering, June, 1999.

Subrahmanyan, Pradeep, "Magnetic Suspension Vibration Isolation Systems," MIT, Mechanical Engineering, September, 1999.

Weng, Ming-Chih, "Tube Suspension", MIT, Mechanical Engineering, February, 2000.

Liebman, Michael, "Rotary-Linear Axes for High Speed Machining," MIT, Mechanical Engineering, September, 2001.

Byl, Marten, "High-Accuracy Fast Tool Servo for Asymmetric Turning," MIT, Mechanical Engineering, June, 2005.

Lu, Xiaodong, "Ultra-Fast Tool Servos for Nano-Surfaces," MIT, Mechanical Engineering, September, 2005.

Montesanti, Rick, "Fast Tool Servos for High Spatial Frequency Part Generation," MIT, Mechanical Engineering, September, 2005.

MacKenzie, Ian, "Magnetic Suspension Positioners," work started June, 2006.

Doctoral Theses, Reader:

van Doren, Matthew, "Precision Machine Design Methodology for the Semiconductor Industry", MIT, Mechanical Engineering, June 1995.

Yeh, T.J., "Dynamics and Control of High Precision Magnetic Bearing Systems," MIT, Mechanical Engineering, June 1996.

Ofori, John, "Direct-Drive Motor for Electric Vehicle Propulsion," MIT, Electrical Engineering and Computer Science, September 1996.

Nayfeh, Samir, "Design and Application of Damped Machine Elements," MIT, Mechanical Engineering, June 1998.

Valjavec, Marko, "Die Forming Control", MIT, Mechanical Engineering, February, 1999.

Robinson, David, "Design and Analysis of Series Elasticity in Closed-loop Actuator Force Control," June 2000.

Ottensmeyer, Mark, "A Surgical Haptic Device", February, 2001.

Roberts, David, "Micro-Hydraulic Transducer Systems," February, 2002.

Konkola, Paul, "Interference Lithography," June, 2003.

Kwangduk Douglas Lee, "Load Monitoring of Electrical Systems," June, 2003.

Steve Buerger, "Force Reflecting Actuators," June, 2005.

Kripa Varanasi, "Low Wave Speed Damping of Structures," June, 2005.

Lei Zuo, "Vibration Dynamics and Control," June, 2005.

Theses supervised by David L. Trumper

Golda, Dariuz, expected completion December, 2006.